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# FM 17-35

DEPARTMENT OF THE ARMY FIELD MANUAL

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## RECONNAISSANCE BATTALION ARMORED DIVISION

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DEPARTMENT OF THE ARMY

MARCH 1951

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FIELD MANUAL

*Reconnaissance Battalion Armored Division*

CHANGES  
No. 1

DEPARTMENT OF THE ARMY  
WASHINGTON 25, D. C., 31 October 1952

FM 17-35, 1 March 1951, is changed as follows:

**110. SUPPORTING UNITS IN ATTACK**

\* \* \* \*

c. Tactical air support \* \* \* to be desirable. To employ close air support effectively, the reconnaissance battalion commander, his staff, and subordinate commanders, must be thoroughly familiar with established procedures. These include—

- (1) (Added). *Selection of air targets.* The reconnaissance battalion commander must be able to recognize, rapidly, targets which are remunerative for air strikes. Included in this category are troop concentrations, vehicles, gun positions, command posts, defended road blocks, strongly defended positions, and pillboxes. In general, except for area targets, any target which cannot be effectively engaged by organic or supporting ground weapons may be profitably engaged by fighter-bombers.
- (2) Added. *Methods of designating targets for air attack.* To insure accuracy and to safeguard friendly troops and matériel, the reconnaissance battalion commander must be

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familiar with the means available and the techniques of marking or identifying targets for close air support. These means include the following, used either separately or in combination:

- (a) Reference to grids or coordinates on large scale maps or photographic mosaics.
- (b) Reference to nearby landmarks or terrain features readily discernible to the aircraft pilot.
- (c) Establish reference points with smoke shells; i. e., artillery, mortar grenade, recoilless rifle, rocket, etc. Colored smoke is preferable.
- (d) Use of illuminating shells; i. e., artillery, mortar, naval, etc.
- (e) Use of searchlights.
- (f) Use of pyrotechnics.
- (g) Use of colored panels and other markings to assist navigation of attacking aircraft in the target area and to identify friendly positions.
- (h) Verbal description of the target radioed through a forward air controller to the aircraft.
- (i) Adjustment of simulated air attacks for pilot orientation.
- (j) Use of electronic equipment; i. e., radio homing devices, beacons, etc.
- (k) Use of any one or a combination of the above methods to control a tactical air



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coordinator who, in turn, leads attacking aircraft to the target.

- (3) (Added). *Request for close air support.* Certain basic information must be contained in requests for close air support. This information must include the following:

- (a) Exact target location.
  - (b) Target description, including sufficient detail to permit selection of appropriate armament.
  - (c) Results desired. Destruction or neutralization.
  - (d) Location of nearest friendly troops with respect to the target.
  - (e) Time over the target.
  - (f) Tactical significance.
  - (g) Special control information including target and front line marking and tactical air control party or forward air controller in position to control the attacking aircraft.
  - (h) Other pertinent information, such as ordinates of ground fire in area and restrictive fire plans.
- (4) (Added) *The tactical air control party (TACP).* The tactical air control party is an Air Force team especially organized and trained to direct combat air support strikes in the vicinity of forward ground elements by visual methods. The TACP is equipped with its own transportation and communi-

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cations, air-to-ground, point-to-point; however, in an Armored reconnaissance battalion the forward air controller is normally mounted in a tank, equipped with VHF radio, from the battalion staff section. The forward air controller, thus mounted, will normally operate with the battalion command group and, hence, will be readily available to the battalion commander and the artillery liaison officer to assist in obtaining maximum effective coordination of all available supporting fires.

[AG 322 (17 Oct 52)]

BY ORDER OF THE SECRETARY OF THE ARMY:

OFFICIAL:

WM. E. BERGIN  
Major General, USA  
The Adjutant General

J. LAWTON COLLINS  
Chief of Staff,  
United States Army

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DEPARTMENT OF THE ARMY FIELD MANUAL  
FM 17-35

*This manual supersedes FM 2-30, 28 August 1944.*

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RECONNAISSANCE  
BATTALION  
ARMORED DIVISION



DEPARTMENT OF THE ARMY • MARCH 1951

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WASHINGTON 25, D. C., 1 March 1951

FM 17-35 is published for the information and guidance of all concerned.

[AG 322 (5 Dec 50)]

BY ORDER OF THE SECRETARY OF THE ARMY:

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*This manual supersedes FM 2-30, 28 August 1944.*

## CHAPTER 1

### GENERAL

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#### Section I. GENERAL

##### 1. PURPOSE AND SCOPE

a. The purpose of this field manual is to present the basic doctrine for the employment of the reconnaissance battalion of the armored division. The manual covers the tactics and technique of operations of the battalion in the execution of missions which may be assigned it by the division, or any subordinate headquarters of the division to which the battalion or its elements may be attached. All doctrines and principles set forth are designed to serve as guides to commanders and staff officers.

b. This field manual covers the following:

- (1) The general characteristics and fundamentals of employment of the reconnaissance battalion, armored division.
- (2) Marches and bivouacs.
- (3) Security missions.
- (4) Reconnaissance and counterreconnaissance operations.
- (5) Offensive action.
- (6) Exploitation and pursuit.

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- (7) Defensive operations.
- (8) Retrograde movements.
- (9) Special operations.
- (10) Logistics.
- (11) Training.

## 2. THE ARMORED DIVISION

a. The armored division is designed to perform missions that require great mobility and fire power. The division is capable of engaging in most forms of combat, but is especially effective in offensive operations against hostile rear areas (FM 17-100).

b. The armored division is an extremely flexible organization. This flexibility is provided by the combat command-separate battalion organization. Each battalion of the armored division is administratively self-sufficient. Based upon an evaluation of the mission, the enemy, the terrain and weather, and the scheme of maneuver, the division commander attaches combat and service elements of the division to combat commands for each specific operation.

c. Within the combat command, teams of combined arms are organized consisting basically of tanks, armored infantry, and armored engineers, supported by armored artillery. These teams of combined arms are termed *reinforced battalions*. Each is commanded by the battalion commander of the tank or armored infantry battalion around which the team is organized. The reinforced battalions are formed by the attachment of tanks from

a tank battalion to an armored infantry battalion, or of armored infantry from an armored infantry battalion to a tank battalion; normally a unit or detachment of armored engineers is attached or placed in direct support. Armored field artillery is normally placed in direct support of both types of reinforced battalions. The ratio of tanks and armored infantry in these reinforced battalions varies according to their missions—one may be strong in tanks while another may be strong in armored infantry—but the basic principle of employing tanks and armored infantry together in a team of combined arms is usually adhered to (FM 17-33).

### **3. RECONNAISSANCE BATTALION, GENERAL**

The reconnaissance battalion, armored division, is a self-contained tactical and administrative unit organized and equipped to engage in offensive or defensive combat, either mounted, dismounted, or a combination of both, primarily in the execution of security and reconnaissance missions. The battalion is the security and reconnaissance unit of the armored division. The division commander will normally use it as an economy force so that he can concentrate the bulk of the division on the most important objectives. As a rule, the battalion operates without attachments of tanks and armored infantry and without direct-support artillery. On occasion, for a particular mission, tanks and armored infantry may be attached and artillery placed in direct support. For employment of the reconnaissance company, see FM 17-22.

#### 4. CHARACTERISTICS, RECONNAISSANCE BATTALION

The reconnaissance battalion of the armored division is identified by the following characteristics:

*a. Rapid mobility.* The battalion has excellent mobility on roads and trails and good mobility across country. Its mobility is limited only by the flotation of its tracked and wheeled vehicles, by common natural obstacles, and by the maximum sustained speed of full-track vehicles.

*b. Light armor protection.* The maximum armor protection within the battalion is found on the light tank. This armor provides protection from small-caliber antitank fire, shell fragments, and small-arms fire. The armor on the personnel carriers provides protection against small-arms fire and artillery shell fragments.

*c. Heavy fire power.* The battalion is equipped with a high proportion of automatic weapons, both personal and vehicular. Each reconnaissance platoon is equipped with automatic weapons, tank guns, and a mortar, and therefore is capable of delivering both direct and indirect fire.

*d. Flexible and versatile organization.* The  $\frac{1}{4}$ -ton truck, the light tank, and the armored personnel carrier are the basic fighting vehicles of the battalion. These vehicles are designed to permit rapid mobility on roads and across country. Because of this mobility the battalion commander can change his direction of advance or formation for combat rapidly. This flexibility of formation and movement is a distinct advantage to the battalion commander when maneuvering his unit over the broad

frontages which are characteristic of the average security or reconnaissance mission. Each reconnaissance platoon is a self-contained tank-rifle-scout-mortar team. This organization permits the elements of the battalion to readily adapt themselves to the various phases of offensive or defensive combat.

*e. Multiple means of communication.* Radio, wire, messengers, visual means, and an organic Army aircraft are available for communication purposes within the reconnaissance battalion. The excellent means of communication within the battalion facilitate the accomplishment of its security and reconnaissance missions over the broad frontages normally covered.

## **5. CAPABILITIES AND MISSIONS OF THE RECONNAISSANCE BATTALION**

*a.* There are certain missions which most efficiently exploit the characteristics of the reconnaissance battalion. These missions are primarily of a reconnaissance and security nature. The battalion is ideally suited for the performance of these missions because of its capabilities for—

- (1) Engaging in offensive and defensive combat, either mounted, dismounted, or a combination of both.
- (2) Performing independent operations with or without support of other units or weapons.
- (3) Deploying over wide areas and broad frontages.



- (4) Rapidly altering its direction of action and its organization for combat.

b. On occasion, the battalion may be reinforced by the attachment of tanks, armored infantry, and armored engineers. These attachments proportionately increase the capability of the battalion to engage in sustained combat. Artillery may be placed in direct support of the battalion, but is rarely attached.

c. The characteristics and capabilities of the battalion in effect determine the basic types of missions which may be assigned it. These missions are—

- (1) Providing security to the front, flanks, or rear of the higher command.
- (2) Performing reconnaissance for the higher command in any combat situation.
- (3) Executing attack or defense missions suitable for a lightly armored unit.

## **6. FACTORS AFFECTING EMPLOYMENT**

Certain factors influence operations of the reconnaissance battalion. These factors are potential sources of adverse conditions which may require special measures to be taken.

a. The capacity of the reconnaissance battalion's organic supply trains places a limitation upon the time length of continuous operation, which is normally considered to be approximately 3 days under combat conditions. At the end of this time the normal supplies of the battalion will be exhausted unless provisions are made for resupply or rationing of supplies on hand. Both combat and

supply vehicles may be overloaded as a temporary expedient to increase the amount of supplies carried and thereby increase the time length of continuous operation.

*b.* The limited rifle strength of the reconnaissance battalion restricts the size of defensive area which it can organize. The battalion has only about half as many riflemen as the armored infantry battalion. This weakness may be partially overcome by dismounting such mounted personnel as may be necessary to man the position.

*c.* The dispersion of the battalion is limited, for efficient operations, by the effective range of organic radio communication. This limitation may be overcome by providing the battalion with long-range radio equipment or use of radio relay.

*d.* In the employment of the reconnaissance battalion, careful consideration of the terrain frequently represents the difference between success and failure, and indicates whether the action should be undertaken mounted, dismounted, or a combination of both. Some types of terrain restrict wheeled vehicles but not tracked vehicles. Tracked vehicles operate most effectively over open and even terrain where their full cross-country mobility can be used. Swamps, unfordable streams, dense woods, heavily eroded terrain, steep slopes, and vegetation that limits visibility are all factors that restrict the employment of tracked and wheeled vehicles. However, this does not mean that vehicles are useless in those situations or should not be used over unfavorable terrain.

*e.* Weather is another factor which affects

employment of the reconnaissance battalion. Weather affects terrain by changing the trafficability of the soil and condition of streams. Tracked vehicles can frequently move over ground covered with deep snow where other vehicles cannot operate. Adverse weather may restrict the battalion's mobility, but every effort should be made to overcome this handicap by careful selection of routes and use of such field expedients as are necessary.

*f.* The enemy's use of mines may temporarily limit the battalion's mobility. Personnel trained in the neutralization and removal of mines should be placed in the forward elements of any advancing formation. With proper training, much of this work can be accomplished by the scout sections.

*g.* The physical characteristics of the vehicles of the battalion are considered when planning an operation. These include the weight, size, and noise of the tanks and armored personnel carriers, and the somewhat restricted cross-country mobility of the wheeled vehicles. The combination of armored and unarmored vehicles in the reconnaissance also affects mounted employment.

## **7. OPERATIONAL CONTROL, RECONNAISSANCE BATTALION**

The reconnaissance battalion may operate directly under the division or under one of the major subordinate commands of the division, or companies may be attached to other elements of the division.

*a.* The decision as to what headquarters will control the reconnaissance battalion is the respon-

sibility of the division commander. This decision is usually based upon these factors—

- (1) The mission of the battalion.
- (2) The major unit (division or combat command) which has the primary interest in the mission assigned the reconnaissance battalion.
- (3) Terrain as it affects the proposed operation.
- (4) Enemy situation.

*b.* Except as stated in *f* below, it is preferable that no more than one reconnaissance company be detached from the battalion. This is desirable in order to maintain the battalion's tactical integrity and to prevent undue loss of combat efficiency.

*c.* The reconnaissance battalion is retained directly under division control when the mission it is assigned is of primary interest to the division as a whole, regardless of the combat formation of the division. Under these circumstances the battalion receives its instructions in the form of mission-type orders from the division commander and renders its reports directly to the division command post and, if necessary, to any intermediate unit having vital need of the information.

*d.* The battalion may be attached to a combat command when the mission of the battalion is of primary interest to one combat command only. For instance, if the combat formation of the armored division is a column of combat commands, the reconnaissance battalion may frequently be attached to the leading combat command. The mis-

sion for which the battalion is best suited in this formation is to provide security for one or both flanks of the leading combat command. Regardless of whether the battalion is operating on one or both flanks of this command, the battalion commander normally controls and coordinates all elements of his unit.

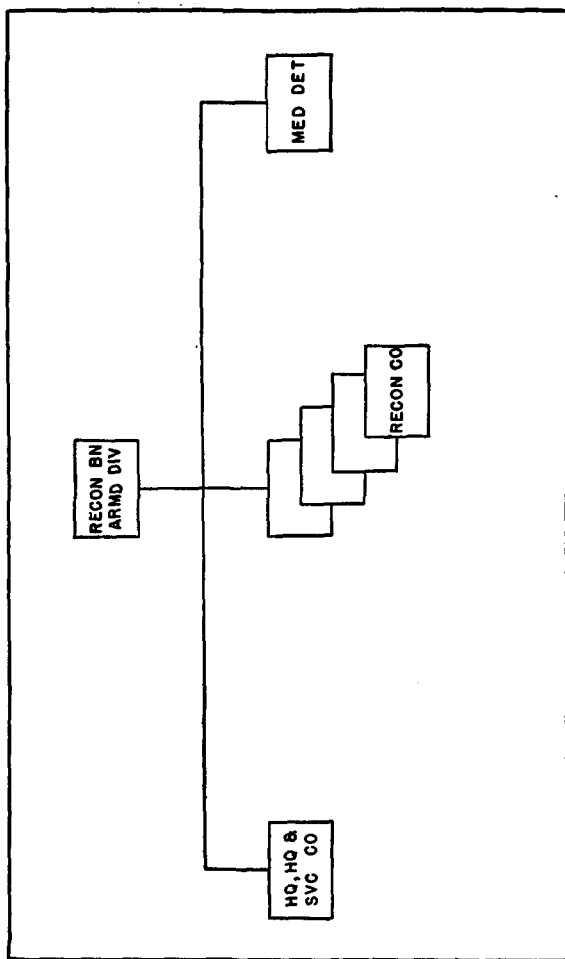
*e.* The reconnaissance battalion may, on occasion, be divided between division and one combat command. When it is foreseen that a limited reconnaissance or security mission exists within a combat command's mission, one company of the battalion may be included in the troops attached to this combat command. Under these circumstances, the remainder of the battalion is normally retained under division control.

*f.* When the division is advancing with two combat commands abreast, the leading commands may require additional troops for security, reconnaissance, and maintaining contact between columns; under these conditions reconnaissance companies may be attached to these combat commands. The remainder of the battalion is normally held under division control.

## **Section II. ORGANIZATION AND EQUIPMENT**

### **8. GENERAL**

The reconnaissance battalion consists of a headquarters, headquarters and service company; four reconnaissance companies; and a medical detachment (fig. 1).



*Figure 1. Organization, reconnaissance battalion, armored division.*

## 9. ORGANIZATION, RECONNAISSANCE COMPANY

See FM 17-22 for organization and employment of the reconnaissance company.

## 10. BATTALION HEADQUARTERS

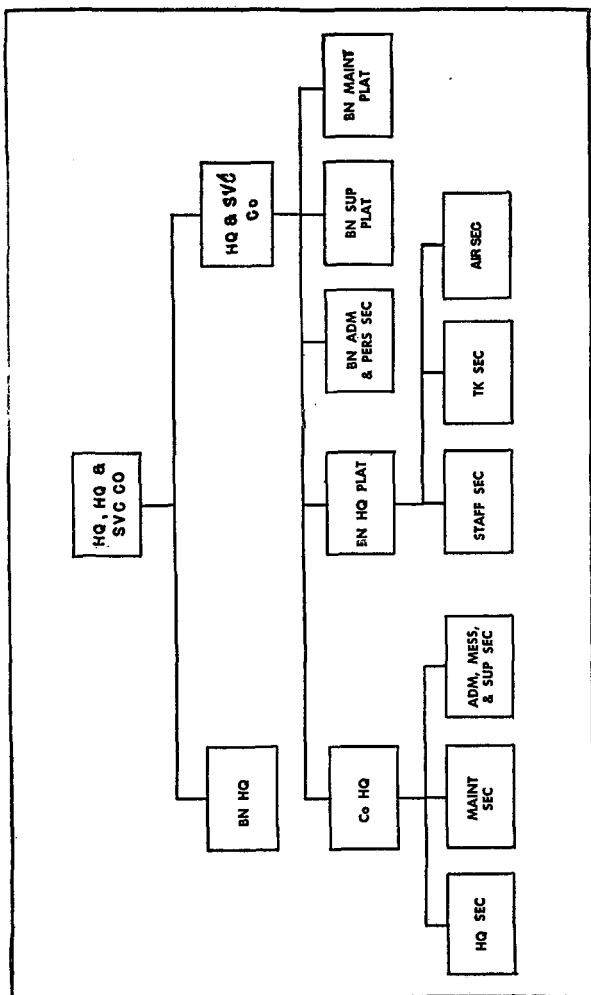
The battalion headquarters contains the necessary officers and warrant officers to command, control, and supervise the organic companies and to exercise tactical control of attached units. Its personnel are the battalion commander; the executive officer; the adjutant (S1); the intelligence officer (S2); the operations and training officer (S3); the supply officer (S4); the communication officer, who is also assistant S3 air; liaison officers; a warrant officer, personnel; and a warrant officer, supply.

## 11. HEADQUARTERS AND SERVICE COMPANY

The headquarters and service company of the reconnaissance battalion (fig. 2) contains the necessary personnel, vehicles, and equipment for the administration, supply, and maintenance of the battalion.

a. The *company headquarters* of the headquarters and service company is organized to provide administrative, supply, maintenance, and mess facilities for the company and for battalion headquarters personnel in both the forward echelon and rear echelon.

b. The *battalion headquarters platoon* contains the necessary enlisted personnel for the staff, tank, and air sections, and the vehicles and equipment



*Figure 2. Organization, headquarters, headquarters and service company, reconnaissance battalion, armored division.*



needed for the command and control of the battalion. The light tanks of the tank section are primarily for the use of the battalion commander and such staff officers as he may designate. If the need arises, they may also be used to provide artillery forward observers and forward air controllers with mobile, armor-protected observation posts.

c. The *battalion administrative and personnel section* contains the necessary personnel to maintain and process the personnel records of the battalion. During combat operations the section normally joins the division administrative center, located at the division headquarters rear echelon.

d. The *battalion supply platoon* is organized and equipped with the personnel and trucks necessary to transport supplies of fuel, lubricants, ammunition, water, and rations from division or army supply points to the companies of the battalion. If the battalion is attached to a combat command, a part of the platoon operates with the battalion; the remainder operates as part of the trains of the combat command. When the battalion is operating under division control, or on a separate mission, the supply platoon is in the battalion combat trains.

e. The *battalion maintenance platoon* is organized and equipped to supervise and perform organizational maintenance, recovery, and evacuation of vehicles and resupply of parts for weapons and vehicles of the battalion. During combat operations the major portion of the platoon normally

moves as a part of the battalion combat trains in order to expedite battlefield recovery and maintenance (pars. 223-226).

## **12. MEDICAL DETACHMENT**

The medical detachment is organized and equipped to provide mobile medical support for the battalion. During combat operations the aidmen, in 1/4-ton trucks, are attached to the reconnaissance companies to ensure prompt evacuation of the wounded. The remainder of the detachment operates a mobile aid station near the battalion headquarters forward echelon (par. 227).

### **Section III. ORGANIZATION FOR COMBAT**

## **13. TECHNIQUE OF OPERATION, BATTALION HEADQUARTERS**

During combat operations, the reconnaissance battalion headquarters normally operates in two echelons, the forward echelon and the rear echelon. The composition of the forward echelon and the rear echelon may vary according to the situation; however, the general basic organization is as given in paragraphs 14 and 15.

## **14. FORWARD ECHELON, BATTALION HEADQUARTERS**

a. The forward echelon of the reconnaissance battalion headquarters normally consists of the battalion commander, the executive, the operations

officer, the intelligence officer, the supply officer, the communication officer, and the adjutant. It also contains such other personnel as are necessary to control and supervise the tactical operations of the battalion. This echelon maintains communication with higher, adjacent, supporting, and subordinate units. It makes reports to the command group (*b* below), makes plans for future operations, provides for liaison with adjacent and higher units, and supervises liaison from supporting and subordinate units. The forward echelon assists the commander in controlling the detailed operations of the unit, thereby leaving the commander free to personally supervise at critical points. The forward echelon normally follows closely, by bounds, the combat elements of the battalion.

*b.* The command group is a subdivision of the forward echelon containing certain key officers and men who usually accompany the commander. It remains well forward during operations so that the commander may quickly and directly influence the course of action at critical periods. The command group must maintain communication with the forward echelon so that everyone concerned is kept informed on the progress of operations.

## **15. REAR ECHELON, BATTALION HEADQUARTERS**

The rear echelon is that part of the battalion headquarters engaged in administrative and supply duties. It is generally located with the trains of the battalion in order to provide for its security and to avoid interruption of its functions (*pars.*

17, 214-216). Another reason for grouping this part of the headquarters into a separate echelon is to decrease the size of the forward echelon and thereby increase its mobility and security.

## **16. COORDINATION WITHIN AND BETWEEN HEADQUARTERS ECHELONS**

In the operation of these two headquarters echelons, it is most important that constant communication be maintained and that there be a steady flow of information, especially between the command group and the forward echelon. The forward echelon cannot keep higher headquarters informed, nor can it properly exercise over-all supervision of the battalion, unless it knows at all times the decisions, location, and activities of the commander. By the same token, the commander cannot direct or command his battalion unless he is fully aware of the battalion situation as a whole and of current information from higher headquarters. To insure this coordination, the executive officer is left at the forward echelon to represent the commander with higher headquarters and to pass on orders and render decisions, in the commander's name, to subordinate units. The commander must also so locate himself as to be always in communication with his forward echelon and must not become so involved in a local action that he cannot supervise the entire battalion.

## **17. BATTALION TRAINS, GENERAL**

The battalion trains consist of the administrative, supply, maintenance, and medical vehicles

organic to or attached to the battalion. When the reconnaissance battalion is operating under division control or is on a separate mission, its trains normally operate as a unit under the control of the battalion S4. In this case the battalion trains are usually held in the vicinity of the battalion command post or may follow the battalion by bounds. When the battalion is operating under the control of one of the major subordinate commands of the division, or when the situation requires, its trains are normally divided into combat and field trains. There is no specific organization for the battalion combat and field trains. When constituted, the battalion combat trains consist of those vehicles which are required for the immediate support of combat operations; they are normally held in the vicinity of the battalion headquarters forward echelon. The battalion field trains consist of those vehicles which are not required for the immediate support of combat operations; they normally operate from the trains area of the higher command. For a detailed discussion of the battalion trains, see paragraphs 214-216.

## **18. TRANSMITTING ORDERS**

Orders to the battalion from higher headquarters and orders from the battalion to subordinate units are transmitted by the following means:

- a. Written or oral operation order, either complete or fragmentary.
- b. Written or oral administrative orders.
- c. Messages (written or oral).
- d. Personal visits between commanders and

staffs or use of liaison officers and messengers.

e. Radio and wire communication.

## **19. BATTALION COMMANDER**

a. The reconnaissance battalion commander must thoroughly understand the tactical and technical employment of his battalion. He must also have a sound working knowledge of the employment of any element of the armored division which may be attached to or placed in support of his unit. He is responsible for the training of the battalion, for its actions in battle, for the health and well-being of its personnel, and for its supply and the maintenance of its equipment. To fully accomplish these responsibilities he must make extensive use of his staff officers and all subordinate commanders and leaders. To develop ingenuity, initiative, self-reliance, and aggressiveness he should allow his staff officers and company commanders maximum freedom of action in carrying out his policies.

b. The battalion commander makes decisions, which are transmitted to the battalion as orders. By vigorously supervising and checking, he and his staff officers insure that the orders are understood and carried out. In the absence of orders from higher headquarters, he must be prepared to take action on his own initiative.

c. To foster a personal relationship with his subordinates, the battalion commander should encourage his staff officers and company commanders to deal directly with him whenever they feel that such action is desirable. To further facilitate

this relationship, he should make frequent visits to the companies and platoons to obtain first-hand information; this action will materially aid morale and esprit de corps, especially during adverse combat conditions. Attached or supporting units should be given the same consideration as organic elements. The commanders of attached or supporting units advise and assist the battalion commander in technical matters pertaining to the employment of their commands.

d. During combat the battalion commander goes wherever he can best direct and control the action of his battalion. Before leaving the battalion command post (forward echelon of the headquarters), he should orient his staff on plans to be made or action to be taken in his absence. The command group (par. 14) usually operates well forward so that the commander can observe and take immediate measures to influence the action and to take advantage of opportunities. The battalion commander may use Army aircraft from which to control the operation.

## **20. GENERAL DUTIES OF STAFF OFFICERS**

a. *Battalion executive.* The executive is the principle assistant and adviser to the battalion commander and must keep himself familiar with all phases of battalion operations. He must also be prepared to assume command in the absence of the battalion commander. Primarily, the duties of the executive officer are to—

(1) Direct and coordinate the battalion staff.

- (2) Direct the operation of the battalion headquarters forward echelon.
- (3) Coordinate and supervise the details of operation, administration, and supply within the battalion.

*b. Battalion adjutant (S1).* The battalion adjutant is primarily concerned with correspondence, records, and all personnel administration. He normally operates from the forward echelon but maintains close liaison and coordination with the battalion administrative and personnel section. See paragraph 230 for the specific duties of the S1.

*c. Intelligence officer (S2).* The primary duty of the S2 is to keep the commander and the unit fully informed of the enemy situation and capabilities, and of the condition of terrain and weather, and to act for the commander in intelligence matters. The S2 should take a positive approach to his duties by always seeking information that will assist the battalion to accomplish its mission. The specific duties of the battalion S2 include the following:

- (1) Collecting, evaluating, and disseminating enemy information.
- (2) Making a continuous tabulation of enemy information in the unit zone and adjacent areas.
- (3) Examining, for information of immediate value to the accomplishment of the battalion's mission, captured enemy personnel, documents, matériel, and civilians, and expediting their transmission to higher headquarters.



- (4) Maintaining intelligence liaison and exchange of information with higher and adjacent headquarters.
- (5) Planning and supervising counterintelligence measures within the battalion.
- (6) Procuring and distributing maps and air photos.
- (7) Supervising and training battalion intelligence personnel.
- (8) In conjunction with S3, planning and supervising intelligence and counterintelligence training for all personnel of the battalion.

*d. Operations and training officers (S3).* The S3 is charged with duties having to do with the organization, training, and combat operations of the battalion. The specific duties of the battalion S3 include the following:

- (1) Making recommendations on assignment and attachment of personnel and units (in coordination with S1 and S4).
- (2) Preparing training programs, field exercises, and maneuvers, based upon orders and directives from higher headquarters.
- (3) Making recommendations on selections of training areas and ranges, and on allocation of training aids and other training equipment.
- (4) Organizing and conducting the various schools within the battalion.
- (5) Conducting training inspections, preparing training tests, and preparing training records and reports.

- (6) Coordinating troop information and educational activities.
- (7) Giving information and making recommendations to the battalion commander in order to keep him fully abreast of the tactical situation.
- (8) Supervising the posting of up-to-date information on the situation map.
- (9) Making all plans and estimates for the tactical operation of the battalion as directed by the battalion commander. These plans and estimates are made by the battalion S3 with the assistance of such other staff officers as he deems necessary.
- (10) Coordinating with the communication officer on the plan for communication within the battalion and with adjacent units.
- (11) Preparing battalion operation orders and overlays. The battalion commander will normally issue his order orally, but the S3 assists the commander in preparing this oral order and records it in the unit journal.
- (12) Maintaining the battalion combined unit journal.

*e. Supply officer (S4).* The battalion S4 is responsible for the logistical support of the battalion, to include the procurement and movement of supplies. He controls the operation, movement, and security of the battalion trains, normally in compliance with instructions from the battalion executive. The battalion S4 moves wherever his

duties require—forward to the companies on matters relating to supply, or to higher headquarters to expedite resupply. See paragraph 211 for the specific duties of the S4.

*f. Communication officer.* The battalion communication officer has the primary duties of ensuring efficient communication within the battalion and of supervising the technical training of communication personnel. He advises the commander, staff, and other interested personnel in all matters pertaining to signal or other communication in the battalion and attached units. There must be positive coordination and cooperation between the communication officer and other staff officers in order to ensure efficient use of communication equipment and personnel. The battalion communication officer normally works directly with the communication officer of the higher headquarters to which his battalion is attached and receives signal orders and procedures from this headquarters. The communication officer normally operates in the forward echelon. He has the additional duty of assistant S3 air and as such is responsible for—

- (1) Receiving and processing requests for air combat support.
- (2) Assigning priorities to requests and submitting approved requests.
- (3) Disseminating information concerning air operations.
- (4) Supervising air-ground liaison.
- (5) Supervising all training within the bat-

talion in air-ground cooperation procedures.

- (6) As required, establishing a communication system which furnishes coordination and positive control between the battalion and supporting aircraft.

*g. Motor officer.* The battalion motor officer, who commands the battalion maintenance platoon, is responsible for the supervision of all vehicle maintenance facilities within the battalion and for liaison and coordination with supporting maintenance units. The maintenance platoon normally is with the battalion trains, although the motor officer, as well as mechanics and evacuation vehicles, must be free to move forward to accomplish the mission. For his specific duties see paragraph 224.

*h. Liaison officers.* See paragraph 30 for the specific duties of the liaison officers.

*i. Headquarters and service company commander.* In addition to commanding his company, this officer may be designated as the headquarters commandant. As such, he should be prepared to assist or assume the duties of any member of the battalion staff; in particular, he may frequently be used to assist the S4 or to command the battalion trains. When operating with the forward echelon, he may supervise the movement and organization of the command post under direction of the executive officer. This officer is frequently placed in charge of the advance party and of supervising security of the command post.

*j. Battalion surgeon.* The battalion surgeon

trains and commands the medical detachment, advises the commander on matters pertaining to the health and sanitation of the command, and plans and supervises all medical service within the battalion. His specific duties are outlined in paragraph 227 and in FM 17-50.

*k. Battalion Army aviation officer.* The primary duty of the battalion Army aviation officer is to operate the battalion's organic Army aircraft and supervise the functioning of the air section; however, he has the additional duty of acting as an advisor to the battalion commander on the employment of Army aviation (FM 20-100 and FM 6-20). The Army aviation officer assists the commander and staff by—

- (1) Preparing, coordinating, and supervising plans for training and employing the Army aviation section.
- (2) Preparing, coordinating, and supervising plans for training designated personnel as air observers.
- (3) Insuring rapid procurement of aircraft supplies parts, and equipment, and proper maintenance of his section.
- (4) Supervising and coordinating the selection, preparation, operation, and improvement of landing strips.

## **21. COMMAND POST ORGANIZATION**

*a.* Command posts may be located in buildings, woods, or fields; and arrangements within the CP necessarily conform to the specific location. How-

ever, there are certain general principles which should be followed in so far as terrain and tactical conditions permit. These include the following:

- (1) The entire command post should be so located as to insure maximum facilities for communication of all types, particularly radio.
- (2) Headquarters sections should be located within the perimeter of whatever security is available.
- (3) The message center should be located near the entrance to the CP.
- (4) The operations intelligence section should be centrally located.
- (5) The commander and executive should be located near each other and near the operations intelligence section.
- (6) Liaison personnel should be so located as to be readily accessible to operations personnel.
- (7) Guides and signs should be placed at appropriate points.

*b.* Any arrangements for the CP must provide for prompt displacement. During actual combat, the CP usually remains mobile and operates from vehicles (fig. 3).



*Figure 3. The battalion headquarters forward echelon during combat.*

## **Section IV. COMMUNICATION AND LIAISON**

### **22. GENERAL**

Efficient control and coordination of a unit requires the establishment of an efficient communication system. This is particularly true in reconnaissance units because of the dispersion characteristic of the average security and reconnaissance mission. With an efficient communication system the battalion commander can receive and relay information expeditiously and can also control and maneuver his companies efficiently. Because most of the battalion's missions require dispersion and rapid movement, wire communication is used only to a limited degree. However, equipment is provided to set up wire communication whenever practical.

### **23. RADIO COMMUNICATION**

a. Within the companies and platoons, frequency-modulated (F-M) radios are the principal means of communication. Amplitude-modulated (A-M) radios are provided for communication between companies and battalion, and between battalion and higher headquarters. As an emergency means the organic Army aircraft can be used as an elevated radio relay station when voice ground radios lose contact with each other. Within the battalion, voice operation should be normal; this may be changed to continuous-wave (C-W) operation in the battalion command net should the range become too great for satisfactory voice reception. See appendix II for typical radio nets.



b. Radio communication from division to the battalion includes command, reconnaissance, and administrative nets. The battalion headquarters operates two nets to companies, an A-M net and an F-M net (app. II).

c. For a discussion of the types of radios organic to the battalion, see FM 17-70.

## **24. WIRE COMMUNICATION**

Wire may be employed in defensive operations, in bivouacs, or in assembly areas, to supplement radio communication or during periods of radio or listening silence. For a typical battalion wire system, see appendix II.

## **25. MESSENGER AND VISUAL COMMUNICATION**

Not only must communication be flexible at all times, but alternate means must be provided wherever possible. Wire and radio communication should be supplemented by messenger service and by visual communication.

a. For delivery of such items as maps, documents, and overlays, messenger communication is essential. When speed of delivery is vital, the organic Army aircraft may be used to deliver items of the type mentioned above. There are mounted messengers in the battalion headquarters, each of whom drives a  $\frac{1}{4}$ -ton truck. Some of these messengers usually operate directly under specified staff officers, while the others operate as a part of message center under the control of the message center chief. Foot messengers should be used extensively

for carrying local messages while the battalion is in bivouac or assembly areas.

b. Visual communication consists of arm and hand signals, flags, panels, signal lamps, and pyrotechnics. Arm and hand signals and flags are used principally for control of vehicular movement, particularly while on the march. Panels are used by all units of the battalion for identification and recognition purposes and, at times, for emergency ground-to-air communication. Pyrotechnics, consisting of signal flares and smoke, are frequently used during an attack and for emergency identification. Sound communication, principally horns, sirens, whistles, and small-arms fire, is used chiefly to spread an alarm, to attract attention, and to transmit short prearranged signals. Prearranged smoke signals for target identification are particularly useful in joint air-ground operations. To be effective, prearranged signals must be simple and easily memorized.

## **26. AIR-GROUND COMMUNICATION**

An air-ground radio set is an organic item of equipment within the battalion organization. It is specifically designed for employment by a forward air controller with the battalion, to contact tactical aircraft. The set is used for directing aircraft on air alert, or providing column cover, to specific targets, for target identification to planes arriving in the area, and for verifying locations of friendly troops. Visual means discussed in paragraph 25 may also be used for air-ground communication. Prearranged signals should be

changed frequently and should be supplemented by radio or other means. This applies, in particular, to the use of colored smoke for pointing out targets to aircraft, since the enemy may fire the same signal into our lines.

## **27. COMMUNICATION SECURITY**

*a.* Communication security varies in importance with the situation and the type of operation engaged in at the time. However, observance of security measures should be the rule rather than the exception; reasonable security at all times should be the goal. In general, information must not be transmitted in the clear unless it will be valueless to the enemy before he can take any countermeasures.

*b.* Communication security includes all measures to deny to the enemy information that might be obtained from intercepting our communication. It includes cryptographic security, transmission security, and physical security. Because of the many radio sets in the reconnaissance battalion, and since most commanders and crewmen are operators of radios, it is vital that all personnel of the battalion be thoroughly trained in radio procedure and communication security.

*c.* Authentication insures the identification of the station or person sending a message. Without it, enemy stations, representing themselves to be friendly, may send false messages or orders or may accept messages in the name of a friendly station. When initial contact between two stations

is made, each must identify itself by the authentication table prescribed in the current signal operation instructions in the same manner as a sign and countersign are used in crossing an outpost line. After initial identification has been accomplished, use of the identification procedure may be eliminated.

*d.* The principles of security must be constantly impressed on all individuals by continuous emphasis and repetition.

## **28. COMMUNICATION TRAINING**

*a.* The standard of training of a unit's communication personnel can be measured by the effectiveness of the unit's communication system. Training is a command responsibility and must be continuous, progressive, and carefully planned.

*b.* Direct supervision of communication training is normally delegated to the communication officer. Technical communication training is usually given at battalion level, although it may be supervised by personnel from the armored signal company.

*c.* All communication training must be organized and conducted to develop teamwork. The initial phase should be followed by periodic reviews and by continuous application concurrent with other training. For example, when a tank section is on the firing range or a reconnaissance platoon is receiving driving instruction, full use should be made of interphone systems and radio sets. Likewise, whenever a staff section undergoes field

training in command vehicles, the normal radio, wire, and messenger personnel should be included so that the entire section can train together as a team. During tactical exercises and maneuvers, the communication officer should set up a monitor to note violations of procedure and security. He should then conduct a critique at the end of each day's operation to give constructive criticism illustrated by specific examples of correct and incorrect usage. The frequency of critiques may be reduced as the number of errors diminish.

## **29. MAINTENANCE OF COMMUNICATION EQUIPMENT**

Organizational maintenance of communication equipment is accomplished by the operators and the company and battalion repairmen. Field maintenance is accomplished by the armored signal company. Organizational maintenance, because of its preventive nature, should be stressed. Careful operation, prompt reporting of any trouble, and thorough cleaning and tightening of all parts by the operator are major steps in keeping sets in continuous operation. Since radio communication is of vital importance in the battalion's operations, radio maintenance (FM 17-50) must be constantly stressed and efficiently supervised by all commanders in the battalion.

## **30. LIAISON**

*a.* The purpose of liaison is to obtain the desired cooperation, exchange of information, coordina-

tion, and unity of effort between commanders. The reconnaissance battalion normally maintains liaison with division headquarters or the headquarters of the unit to which it is attached, and with adjacent units.

b. Liaison may be accomplished either by personal conference between commanders (command liaison) or by means of a liaison officer or agent who represents his unit commander. Usually, both methods are employed concurrently. The liaison officer or agent operates from the headquarters to which he is sent and maintains contact with it and his own unit. Unit commanders meet whenever the tactical situation permits or requires them to do so. To facilitate command liaison when elements of the battalion are widely separated or when the battalion command post is a considerable distance from the higher headquarters, the battalion commander may use organic Army aircraft for command transportation.

c. Effectiveness of liaison is in direct proportion to the efficiency of the liaison officer. He must be alert, tactful, energetic, and possessed of a thorough, practical knowledge of the employment and capabilities of his battalion. The liaison officer must understand the staff procedure of higher units and the tactics and techniques of all arms. He must be provided with a radio-equipped vehicle and one or more enlisted assistants who can serve as messengers.

d. Only by frequent trips between his unit and the headquarters to which he is sent can the liaison officer adequately perform liaison.

e. A reconnaissance battalion liaison officer has four basic missions:

- (1) To keep his own unit commander constantly informed of the tactical situation and the plans of the unit to which he is sent.
- (2) To advise the commander of the unit to which he is sent as to the plans and tactical situation of his own unit.
- (3) To serve as an adviser concerning the employment of the reconnaissance battalion, when asked for such advice by the commander of the unit to which he is sent.
- (4) To transmit orders and instructions from higher units to his own unit and from the battalion commander to subordinate units.

## **CHAPTER 2**

### **MARCHES AND BIVOUACS**

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#### **Section I. GENERAL**

#### **31. MARCHES, GENERAL**

*a.* Armored units, and particularly reconnaissance units, spend a considerable portion of their time in motor marches. Therefore, it is essential that the reconnaissance battalion be able to make orderly and efficient marches, both tactical and administrative.

*b.* The objective of an armored march is to move from one location to another so as to arrive at the appointed time with all personnel and equipment in the best possible condition and ready for combat. The reconnaissance battalion may often be employed directly from the column formation with little or no time to halt and make preparations. This requires thorough planning, aggressive leadership, constant supervision during the march, and, most important, organized training in and practice of march techniques. Only by training and practice can the battalion develop the experienced and well-disciplined units, crews, and individuals that are essential to a successful motor march under combat conditions.



## 32. DEFINITIONS

For a thorough understanding of march technique, it is necessary to know and understand the meaning of the following terms used in marching:

*a. Arrival time.* The hour at which the head of a column, or head of an element thereof, arrives at a designated point.

*b. Clearance time.* The time at which the tail of a column, or the tail of an element thereof, passes a designated point.

*c. Close column.* A motor column in which vehicles are closed up to safe driving distance behind the preceding vehicle.

*d. Control vehicle.* The vehicle that travels at the head of a column, or element thereof, and sets the rate of march.

*e. Density.* The average number of vehicles that occupy 1 mile of road space.

*f. Distance.* The space from the rear of one vehicle (including towed load, if any) to the front of the next vehicle in column; or the space from the rear element of a march unit or serial to the leading element of the following march unit or serial.

*g. Guide.* A person who leads a unit or vehicle over a predetermined route or to a selected area.

*h. Infiltration.* A motor column in which vehicles are dispatched at irregular intervals with a fixed density (such as 3, 4, 5, or 6 vehicles per mile).

*i. Initial point (IP).* Point (example, a cross-roads) at which a foot march or motor movement is formed without halting by the successive ar-

rival of the units that finally make up the column.

*j. March discipline.* Observance and enforcement of the rules which govern a unit on the march, especially those involving correct formations, distances, and speeds, and the effective use of cover.

*k. March order.* An order issued by a commander to give instructions for a march.

*l. March table.* A composite list showing the general organization and time and space schedule for a march movement. It is generally published as an annex to an operation order.

*m. March unit.* A unit or group of units which moves or halts at the order of a single commander. A company, battery, or similar organization normally forms the march unit. A serial is made up of one or more march units.

*n. Marker.* A person, flag, stake, or some other object posted at a point to indicate the position of a unit, a direction or procedure to be followed, a danger point, an obstacle, or a boundary.

*o. Open column.* A motor column in which distances between vehicles are increased to accomplish greater dispersion. Usually a fixed density is specified (such as 10, 15, or 20 vehicles per mile).

*p. Rate of march.* The average marching speed in miles per hour, including short periodic halts.

*q. Regulating point.* A point at which an incoming serial is released from column control and leaves the march column to go into a specific area.

*r. Road space.* The total length of roadway

occupied by a convoy, column, or element thereof.

*s. Serial.* One or more march units, preferably with the same march characteristics, placed under one commander for purposes of march control.

*t. Shuttling.* Transporting troops, equipment, and supplies by a series of round trips of the same vehicles. It may be done by hauling a load the entire distance and then returning for another load; or it may be done by carrying successive portions of the marching force for short distances while the remaining portions continue on foot.

*u. Strip map.* Sketch of a route of march (fig. 14); it may or may not be drawn to scale, but should include identifying landmarks such as towns, bridges, outstanding buildings, crossroads, etc.

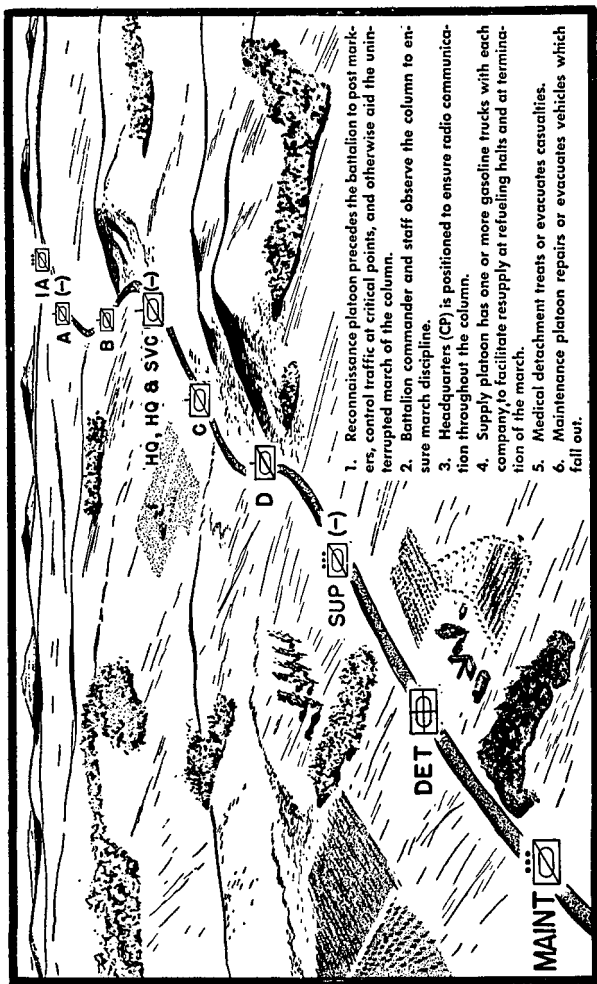
*v. Time length.* The time required for a column or element thereof to pass a given point.

*w. Time interval (time gap).* The interval of time between successive vehicles, march units, or columns as they move past a given point. The time is measured from the instant the tail of one unit clears the point to the instant the head of the next unit reaches it.

### 33. TYPES OF MARCHES

*a.* All marches of the reconnaissance battalion may be classified into two types: the administrative march and the tactical march.

*b.* An administrative march is one in which the possibility of contact with or interference by the enemy, except by air, is remote; therefore, the primary considerations in the arrangement of



1. Reconnaissance platoon precedes the battalion to post markers, control traffic at critical points, and otherwise aid the uninterrupted march of the column.
2. Battalion commander and staff observe the column to ensure march discipline.
3. Headquarters (CP) is positioned to ensure radio communication throughout the column.
4. Supply platoon has one or more gasoline trucks with each company, to facilitate resupply at refueling halts and at termination of the march.
5. Medical detachment treats or evacuates casualties.
6. Maintenance platoon repairs or evacuates vehicles which fall out.

*Figure 4. A battalion formation for an administrative march.*

troops and vehicles for the march are to facilitate their rapid transit and to provide for the comfort and convenience of personnel (fig. 4). The march characteristics of vehicles and units are given preference over combat characteristics. Another consideration in the organization of administrative columns is to group units having the same rate of march.

c. A tactical march is one in which the units and vehicles are so arranged in the column as to facilitate their employment upon contact with or interference from the enemy. In a tactical march, the combat characteristics of units and vehicles are given preference over march characteristics. The factors which have the greatest influence upon dispositions for the tactical march are the composition and proximity of hostile ground forces and aviation. When hostile forces include armored elements, contact with such elements must be expected from any direction. Distance no longer gives armies the same degree of protection and freedom of action they have had in the past. The tactical march requires greater coordination and planning for control, since provision must be made for protection of the front, flanks, and rear. A primary factor in organizing a tactical march is to maintain the tactical integrity of units.

## **34. TYPES OF MARCH COLUMNS**

The reconnaissance battalion normally uses one of three types of march columns: the open column, the close column, or the infiltrating column.

a. The *open-column formation* is particularly applicable to tactical moves which must be made during daylight without air cover, when time is so important that lack of secrecy and the possibility of some losses from air attack are acceptable. Sufficient dispersion is prescribed to prevent simultaneous shelling or bombing of two or more vehicles. Open column may also be used to advantage when moving with driving lights at night, or with blackout lights on moonlight nights on good roads. A fixed density, or a given distance between vehicles, is prescribed when this formation is used. The open-column formation provides the best possible compromise between the conflicting requirements of a short time length of the column and a wide dispersion of vehicles within the column.

b. The *close-column formation* is used when a large volume of traffic must be moved over a short distance at a minimum of time. This formation is also useful for night moves under blackout conditions, particularly over poorly marked routes, when it is essential that distances between vehicles be short enough to enable drivers to maintain visual contact with the preceding vehicles. Normally, close column during daylight is not justified except when the column has air cover or is otherwise secure from hostile air attack. This method of marching permits utilization of the full traffic capacity of the roads; but it does not provide dispersion against enemy observation and attack, and traffic bottlenecks are likely to occur along the route.

c. An *infiltrating column* may be used when suf-

ficient time and road space are available and the maximum of secrecy, deception, and dispersion is desired as a means of passive protection against enemy observation and attack. This formation provides the best possible passive protection from air observation and attack; but because of extended distance between vehicles, column control is extremely difficult and routes must be carefully marked in advance to prevent drivers from becoming lost. If the reconnaissance battalion were operating on one flank of the division and were suddenly given a mission on the other flank, an infiltrating column might be the best method of making the lateral movement with a minimum of interference with other traffic.

## **Section II. PLANNING AND CONDUCT OF MARCHES**

### **35. MARCH PLANNING**

*a.* The successful execution of a march, to include departure from and occupation of bivouac or assembly areas, requires careful and detailed planning, coordination, and reconnaissance on the part of the commander and his staff. The reconnaissance battalion commander must make full use of his staff, subordinate commanders, and liaison officers in order to obtain best results.

*b.* The ultimate goal of a march is to arrive at a designated point at the designated time with vehicles and personnel prepared for combat. To best accomplish this, rules for rates of march, lengths of halts, and other factors of march technique

must be flexible. When the weather and terrain conditions are difficult, the rate of march should be reduced to minimize the possibility of vehicular accidents. When the vehicles have registered an excessive number of miles of operation, good judgment dictates that the rate of march and the length of time between halts be decreased; this allows more time for driver checks and crew maintenance. It is the responsibility of the battalion commander to be acquainted with the condition of the equipment of his command and to be prepared at all times to recommend to higher headquarters the rate of march and other pertinent information.

c. A vital and often neglected phase of march planning is the necessary coordination with higher headquarters, adjacent units, or other units likely to be using the same road space. This is particularly important in a theater of operations, where all roads are normally carrying the maximum load. Road priorities, restrictions, and time limits imposed by higher headquarters must be followed and enforced to the letter by the reconnaissance battalion commander, and any changes found to be necessary should be submitted to higher headquarters for approval. An otherwise well planned and organized march may result in complete confusion because of the unplanned meeting of two columns en route.

d. Preliminary planning and preparation should cover the following:

- (1) Warning order for the march.
- (2) Formation of the column.



- (3) Designation of initial point (or points).
- (4) Routes of march.
- (5) Traffic control during the march.
- (6) Route reconnaissance.
- (7) Rate of march.
- (8) Density and distances.
- (9) Halts and refueling of vehicles.
- (10) Communication on the march.
- (11) Control and supervision of the march.
- (12) Security on the march.
- (13) Battalion trains.

### **36. WARNING ORDER FOR THE MARCH**

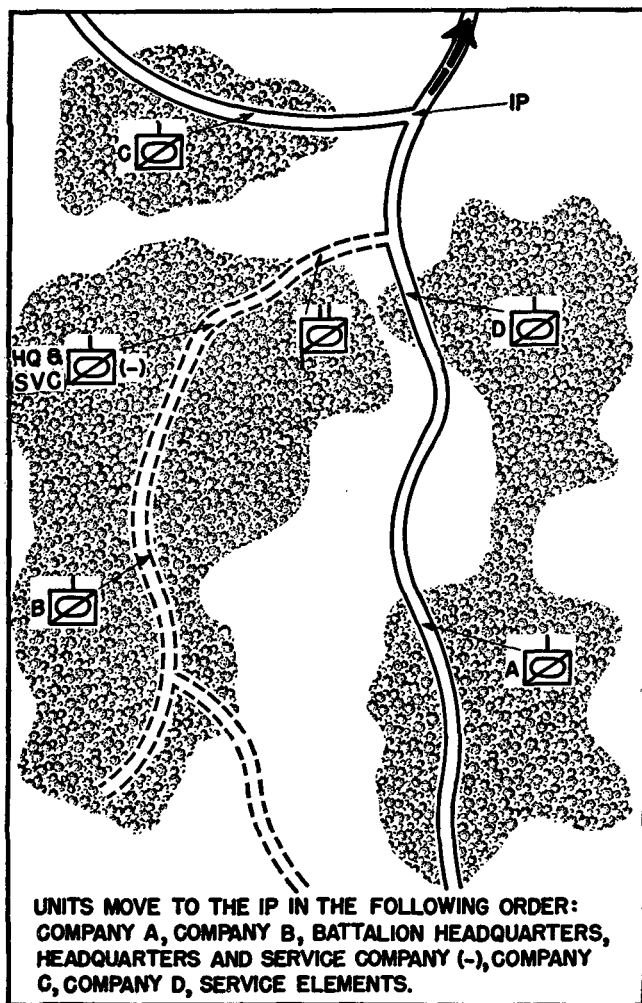
The warning order, issued prior to the detailed march order and as soon as information of the contemplated move is received, is essential for alerting the troops and allowing them time to prepare for the march. The warning order should be issued orally and if possible should include the time of departure, the distance to be traveled, the destination, probable action or status upon arrival, and instructions for the advance party. The habitual use of warning orders not only insures that men and vehicles will always be properly prepared by departure time but also insures that vehicles receive maximum maintenance and that troops receive maximum rest.

### **37. FORMATION OF THE COLUMN**

a. The formation for the tactical march is governed primarily by the tactical situation. The column is so organized as to maintain tactical integrity and to facilitate assuming attack forma-

tions from the march column, or upon arrival at destination, without complicated regroupings. The type of enemy resistance expected governs the composition of the leading march unit. Troops are arranged in the order of anticipated use, or in the order in which it is desired that they enter either the new assembly area or the attack position. If the battalion is marching with other units, as a part of the division, it normally constitutes a serial, each reconnaissance company being a march unit.

b. In an administrative march, the order of leaving a bivouac should be based on comfort and ease, rather than on tactical order. A formation may be selected so that the unit farthest from the IP leads the march, followed by the next farthest unit, which ties in at the tail of the leading unit as it moves by (fig. 5). This procedure is followed by the other units in the bivouac with the exception of battalion headquarters, which should be placed near the center of the column for control purposes, and service elements, which should be at the rear of the column. This formation may also be reversed, the unit nearest the IP leading the march, followed by the next closest unit. Each march unit should establish liaison with the preceding march unit before moving out of the bivouac area. The liaison agent keeps his commander informed as to the time of departure of the preceding unit, thus enabling each march unit to depart at the proper time and take its correct place in the moving column.



*Figure 5. One method of forming the march column.*

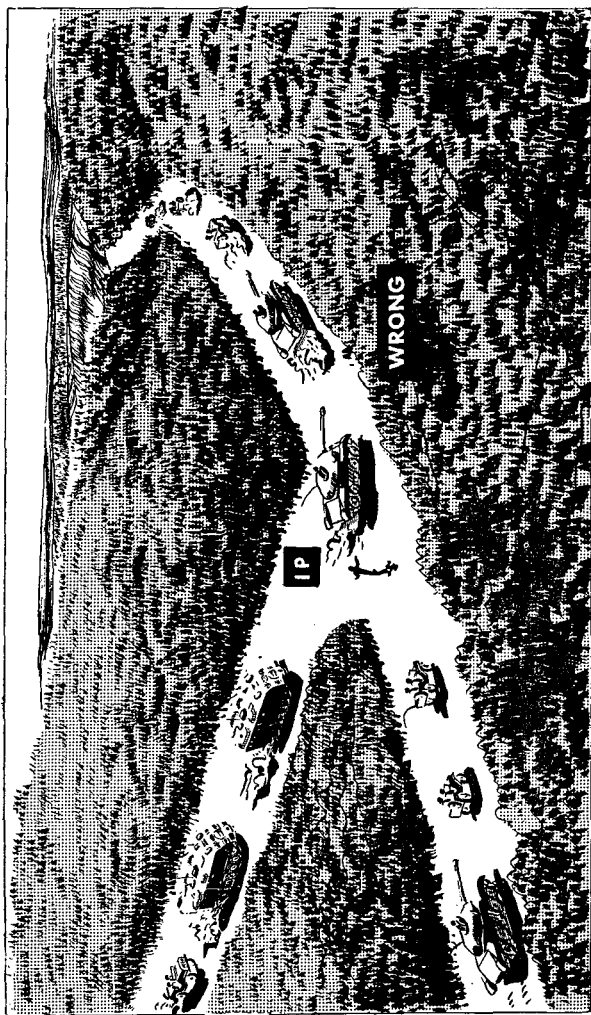
## **38. INITIAL POINTS**

a. The higher commander usually designates an initial point for his command, and sets a time for the battalion to reach and clear it. Likewise, the battalion commander designates a battalion initial point and times for units of the battalion to reach and clear it. The battalion IP is the point at which units of the battalion form a column or a serial and should be easily distinguishable on the ground. It must be located along the line of march near the bivouac, and further located so that no march unit is required to march to the rear or through the bivouac or column of another unit.

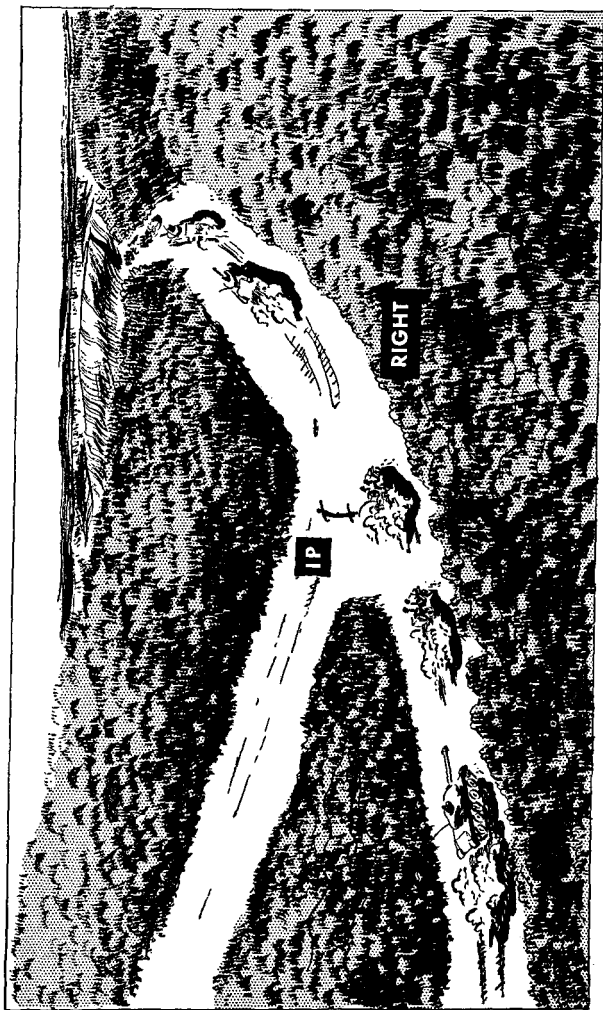
b. Each march unit reconnoiters and times the route to the battalion IP. A staff officer from battalion headquarters conducts the same type of reconnaissance from the battalion IP to the column IP. Thus an estimated time of departure from bivouac is reached which should enable units to take their proper place in the moving column without halting at the IP. Careful planning of starting times will insure that each unit is alert and ready to take its place in column, and also will eliminate premature mounting of vehicles and starting of engines—with resultant fatigue, consumption of fuel, and loss of time for service and maintenance (figs. 6 and 7).

## **39. ROUTES OF MARCH**

A higher commander usually designates a route of march for the reconnaissance battalion. Sometimes the higher commander also specifies route



*Figure 6. Do not move out too early. Here a unit, having done so, must halt at the IP until the preceding unit clears it.*



*Figure 7. Move out from bivouac so that the IP may be passed  
at the proper time without halting.*

priorities and time limits; in this case, the battalion commander must exercise the closest supervision to see that the given requirements are strictly adhered to. When the battalion is given an axis of advance, or when the battalion is operating alone, the battalion commander picks the battalion's route and alternate routes by map or personal reconnaissance.

#### **40. TRAFFIC CONTROL OF THE MARCH**

*a.* When the reconnaissance battalion marches as a part of a larger unit, such as a combat command, a military police detachment normally establishes traffic control points at critical points along the route of march. These traffic control points should be supplemented by markers from the reconnaissance battalion if necessary.

*b.* In an administrative march, and under certain conditions in a tactical march, the column should be preceded by a group of markers under an officer. This group, which may or may not accompany the advance party, reconnoiters the route and posts markers at key positions to insure the safe and orderly movement of the command. Markers should be posted at such points as bad curves or hills to caution drivers to proceed at a slower speed, at a bad bridge or ford to assist and guide vehicles in crossing, and at crossroads and road junctions to insure that all vehicles follow the correct route. In an administrative march, the group of markers should precede the main column by at least 1 hour. In a tactical march this time-distance will depend upon expected

enemy contact and other factors of the tactical situation.

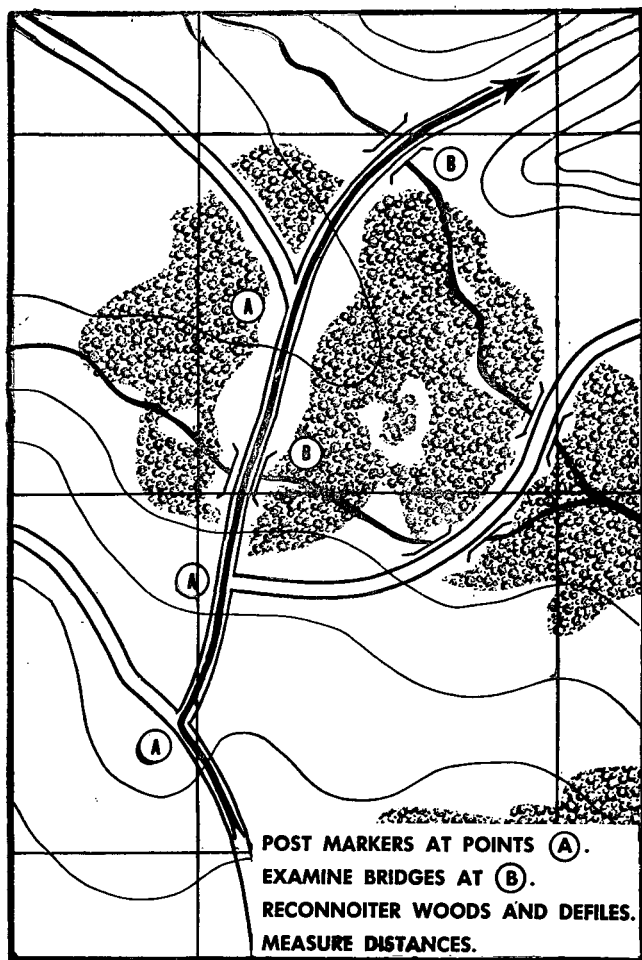
c. Phase lines may be used to control the movement of two or more columns, including the flank guard units. Phase lines should be clearly distinguishable terrain features, such as streams, crossroads, and well-defined ridges, along the route of march. When the heads of columns, usually the control vehicles, cross phase lines, they report their crossing and continue the march; they halt at these lines only when ordered to do so by higher headquarters.

#### **41. ROUTE RECONNAISSANCE**

a. Upon receiving notification of a movement, the battalion commander must obtain all possible information concerning his route of march. His sources of information include reports from higher headquarters (particularly engineer reports), map reconnaissance (fig. 8), air reconnaissance, and ground reconnaissance. A combination of air reconnaissance and ground reconnaissance is the most thorough and reliable, but frequently the tactical situation or lack of time will make it necessary to use only reports from higher headquarters and a map reconnaissance. The reconnaissance should determine the following:

- (1) Roads, to include type, width, condition, and defiles.
- (2) Bridges, to include capacity, location, bypasses, clearance, width, and type of span.
- (3) Fords, to include location, depth, velocity





*Figure 8. Route reconnaissance by map.*

of current, and condition of bottom, banks, and approaches.

- (4) Points at which markers should be posted.
- (5) Any other information of the enemy or the terrain which may be useful to the commander.

b. The reconnaissance battalion is frequently called upon to perform the route reconnaissance for a larger command. For this type of mission, a reconnaissance team from the armored engineer battalion is normally attached to carry out the more technical phase of bridge and road reconnaissance. This special attachment may not always be available, and reconnaissance personnel should be trained for this role. See FM 5-10 for information to be used in this training.

## **42. RATE OF MARCH**

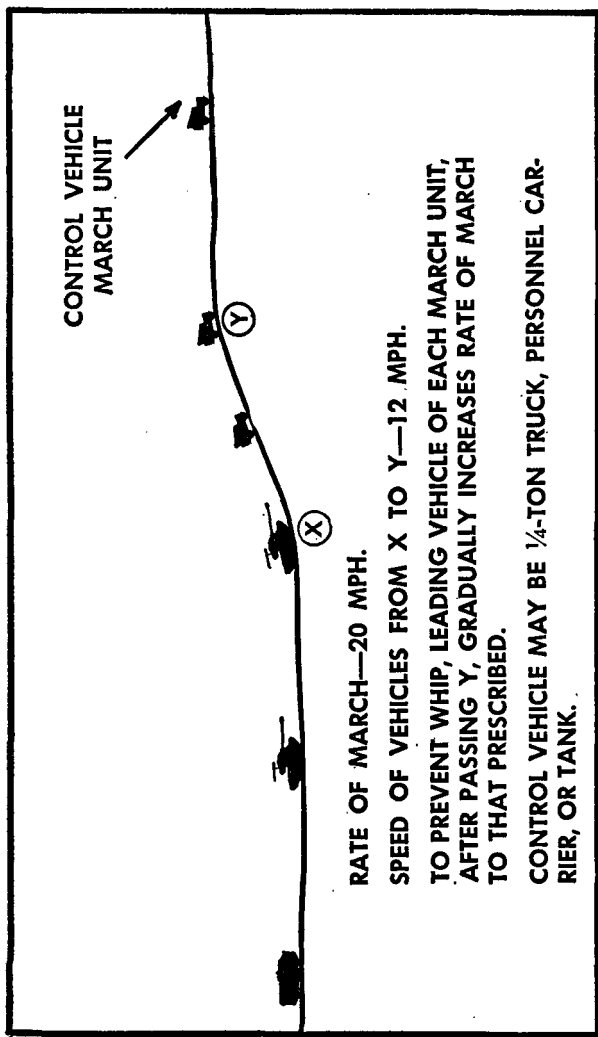
The rate of march is governed by the speed of the slowest vehicles in the column. During daylight and on good roads, this rate is 12 to 20 miles per hour for a mixed column containing tanks and wheeled vehicles. For night marches without lights, except in bright moonlight, this rate is reduced to 8 to 10 miles per hour on good roads. The rate of march, however, is the average speed over a period of time, including periodic halts. A rate of 15 miles per hour can be maintained for a sustained period only when roads are good, the weather favorable, and march training adequate; the vehicle must be in excellent condition and the

crews (particularly drivers) must be thoroughly rested. The rate of march is dependent on other factors, such as terrain, volume of traffic over the route concerned, number and size of cities and congested areas along the route, and the tactical situation.

### **43. CONTROL OF SPEEDS WITHIN THE COLUMN**

a. It is theoretically possible for an entire march column to move at a constant speed. Practically, however, elements in a column of any length simultaneously encounter many different types of roads and obstacles, including hills, sharp curves, and defiles. The result is that different parts of the column, regardless of vehicular performance characteristics, move simultaneously at different speeds. This produces an accordion-like action ("whip"); and on a long hill or a bad stretch of road, a traffic jam may result at the near side of the obstacle while excessive speeds are common on the far side of the obstacle.

b. This problem is particularly important to the reconnaissance battalion because of the varied types of vehicles organic to the unit. To eliminate "whip" in a march column, the leading vehicle must never exceed the maximum sustained rate of speed of the slowest vehicle in the column, especially while negotiating an obstacle. To prevent a traffic jam on the near side of an obstacle, the distance between individual vehicles is shortened as each vehicle enters the obstacle. This decreased distance is maintained as the vehicle passes through the obstacle. To eliminate excessive speeds



*Figure 9. Avoiding "whip" in the march column.*

on the far side of the obstacle, and to regain proper march distance, the leading vehicle must *resume the prescribed rate of march gradually*. Each succeeding vehicle must in turn regain the proper march distance gradually (fig. 9). To assist in the application of this technique, markers should be used as described in paragraph 40, and the battalion SOP for marches should specify a maximum speed for every type of vehicle in the battalion.

#### **44. MARCH DISTANCES**

a. The normal distance between vehicles in the column during daylight is 50 yards. The distance between vehicles on night marches is normally that at which each driver can maintain visual contact with the preceding vehicle. This distance may vary to conform to the tactical situation as well as to local traffic regulations.

b. The distance or time interval between march units in the column is normally between 1 and 3 minutes. Between serials this time interval is normally between 3 and 5 minutes. This also may vary with the tactical situation and local conditions but if possible should be kept within the range stated.

#### **45. HALTS ON THE MARCH**

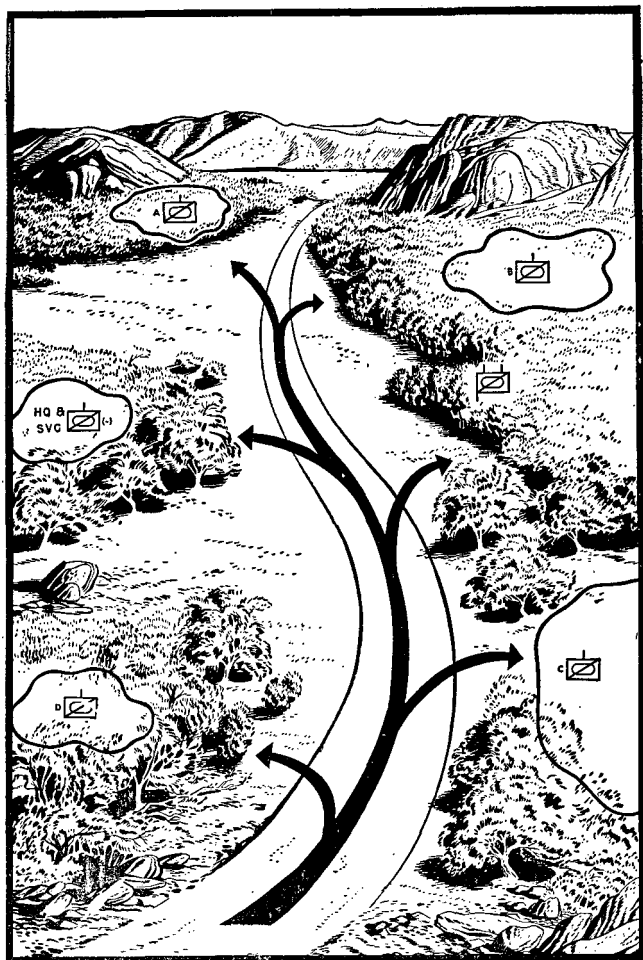
a. Normally, the battalion makes a scheduled halt of 10 minutes each hour or of 15 minutes every two hours. It is advisable to schedule a halt of 10 minutes at the end of the first 50 min-

utes of the march. All march units stop at all scheduled halts and make no attempt to close up gaps in the column. Vehicular crews perform prescribed at-the-halt maintenance operations.

b. At halts, the march unit and serial commanders check to insure that—

- (1) Traffic control personnel are posted at the front and rear of each march unit.
- (2) Correct distance between vehicles is maintained, since armored units do not normally close up at the halt.
- (3) All vehicles and personnel remain on the right side of the road and keep the traveled portion of the road clear at all times.
- (4) Ground and air security is maintained.
- (5) Crew maintenance is performed by the crew of each vehicle.
- (6) Vehicle personnel are alert to receive and relay signals for the resumption of the march. This is particularly important at night.
- (7) Maintenance personnel are checking the mechanical condition of all vehicles in the unit.

c. Halts for refueling and feeding of personnel are scheduled in advance so that unit commanders can plan accordingly. The distance traveled before refueling should not exceed 75 miles. Trucks from the supply platoon are usually attached to the companies for a march. One method of refueling is to have these trucks move up the column, dis-



*Figure 10. When "coiling up" at a halt, companies quickly move off the road and remain ready to move out on short notice.*

tributing full 5-gallon gasoline drums to the vehicles; on their return, they collect the empty drums.

*d.* During tactical marches when action is imminent, or during prolonged halts, it is often desirable to shorten the column. Where the terrain permits, units of the battalion accomplish this by "coiling up" on each side of the road (fig. 10). Each company selects, or is assigned, an area off the road; all of its vehicles move into this area just as they would move into a bivouac or an assembly area. In an administrative march, the units are so placed that they can easily move back onto the road, faced in the proper direction to resume the march. In a tactical march, the companies must be prepared to move in the direction of the anticipated action.

#### **46. COMMUNICATION ON THE MARCH**

When security permits, radio is the principal means of communication on the march. Except under severe weather and terrain conditions the battalion should be able to control all units over frequency-modulated systems. Visual signals—particularly arm and hand signals and flag signals—should be used extensively for column and vehicle control. Messengers may be used in some cases; but they should be kept to a minimum while the column is moving and should be used only to carry maps, overlays, and similar material. A liaison agent or officer should remain with the preceding serial, to inform the battalion commander of that serial's actual time of departure and



time of clearing the IP and intermediate control points, and to give early warning of any unscheduled halt.

#### **47. CONTROL AND SUPERVISION OF THE MARCH**

*a.* Efficient control of the reconnaissance battalion on the march requires a high degree of training. Discipline and diligent leadership play an important role in keeping a command alert, particularly at night, when there is a tendency toward slower execution of orders and a general slackening in discipline because of fatigue and darkness.

*b.* During the movement, a staff officer is always kept at battalion headquarters to render prompt decisions and issue additional instructions where necessary. This will usually be the battalion executive officer, who rides in a vehicle near the center of the column. The battalion commander and other staff officers observe the march of the column, checking on march discipline and the general condition and conduct of the march. The commanding officer or a representative should always be at the unit IP to check the order of march, condition of vehicles and personnel, interval, and general march discipline.

*c.* The leading vehicle of each march unit acts as a control vehicle to maintain the speed prescribed by the march unit or serial commander. A designated officer or noncommissioned officer rides in this vehicle to insure that it keeps as near the prescribed speed as traffic and road conditions permit. Frequently, the control vehicle is preceded

by an officer in a 1/4-ton truck, who serves as the navigator or pathfinder. The march unit commander should observe the march of the column continuously, making on-the-spot corrections where necessary. Within the march unit the individual vehicles vary their speed as necessary to maintain the proper distances with a prescribed maximum speed. The march unit commander should inspect his unit with the designated battalion staff officer at the battalion IP to make on-the-spot corrections.

*d.* When the column makes an unscheduled halt, unit commanders must immediately go forward to the heads of their respective columns to determine the cause of the delay and to assist in getting the column moving again. All commanders must make a special and continuous effort to continue the forward movement without delay.

*e.* The halt is primarily a period for checking vehicles and equipment, and for the relief of personnel. During halts commanders check vehicle maintenance, the status of vehicles and personnel, distances, and security. Commanders also have the opportunity for direct contact with their men, and can make corrections or commendations.

*f.* One of the best means of column control and supervision is the Army aircraft, which is organic to the reconnaissance battalion. It permits excellent observation of routes and obstacles, as well as of march discipline and the general conduct of the march. When terrain formations make radio communication between vehicular sets difficult or impossible, the Army aircraft may be used as a relay station in the F-M net.

## 48. SECURITY ON THE MARCH

*a.* The degree of security necessary on a march is determined by the proximity of enemy forces; the probable type of enemy interference expected, such as armor, ground, air, or chemical; and the location of the reconnaissance battalion column with respect to other friendly forces. The reconnaissance battalion is frequently called upon to furnish march security for larger units.

*b.* Under certain conditions, administrative marches may be conducted in areas where the civilian population is hostile. In such instances, careful consideration must be given to ground security, both during the movement and at the halt. At the halt, sentries must be placed on the flanks of the column; vehicular crew members must be on the alert at all times just as if the march were being made in the presence of the enemy. In addition, special provisions must be made to protect maintenance personnel working on disabled vehicles which may have dropped from the column.

*c.* In a tactical march, the battalion should be preceded by an advance guard. The size, composition, and disposition of this element are matters for command decision and vary with the mission, terrain, and tactical situation; but it should be no stronger than is necessary for security. The leading unit of the column may act as the advance guard, or the advance guard may precede the column by a short time interval. Regardless of its proximity to the column, its mission is to provide for the uninterrupted advance of the main body

and to preserve for the commander freedom of action in employment of the unit.

*d.* In a tactical march, the battalion protects its flanks by means of flank guards, especially when protection is not afforded by adjacent friendly troops. Flank guards cover those routes of approach which might be used by hostile forces to attack the flanks of the column. They may accomplish this by traveling on parallel roads and being distributed in sufficient depth to ward off or give warning of surprise enemy attack (fig. 11); or echelons of the flank guard may move by bounds from one position to another, occupying terrain features from which good observation is possible.

*e.* A rear guard is a security element which follows and protects the rear of the main body on the march. This rear guard is used to collect stragglers, to protect the trains, and to defeat or delay hostile forces attacking the rear.

*f.* One of the best security measures that may be employed by the reconnaissance unit commander on the march is use of the Army aircraft. Full advantage should be taken of this means of observation to obtain knowledge of routes and of enemy forces and their dispositions.

*g.* Within the column itself, security must be provided against air attack during the march and during halts (figs. 12 and 13). This is done by designating an air sentry on each vehicle and by continuous manning of antiaircraft guns both while moving and while at the halt. Passive security includes the dispersion of vehicles and the maintenance of proper distance; particular attention



Figure 11. When the road net permits, the flank guard moves parallel to the main body, observing from hills B, prepared to block roads A, and reconnoitering woods C.



*Figure 12. Security against air attack while on the march. This column was not alert; vehicles closed up at the bottom of the hill and made an excellent target.*



*Figure 13. Security against air attack while on the march. Vehicles continue the march; all anti-aircraft guns are manned and fired; vehicles are properly spaced.*

must be paid to the tendency to jam up at halts, obstacles, and traffic bottlenecks. Specific vehicles must be designated to cover the rear, front, or flank with their antiaircraft guns. Security must be checked by staff officers and commanders moving along the column. A vital part of air security is an adequate air warning system, such as a radio flash signal, within the column.

#### **49. POSITION OF BATTALION TRAINS ON A MARCH**

In an administrative march, the battalion trains, less those vehicles marching with individual companies, normally march as a unit at the tail of the battalion. In a tactical march, their position is the same unless they are organized into combat and field trains; in this case the combat trains usually move with the battalion, and the field trains move with the trains of the higher command.

#### **50. STRIP MAP**

A strip map (fig. 14) is desirable as part of a march order; it is particularly useful to commanders of small units in column control. It is used to give a schematic picture of the route of march and information and restrictions pertaining thereto. Strip maps should whenever possible be reproduced in quantity and supplied to all personnel concerned, including platoon leaders and vehicle commanders. The purpose of a strip map is defeated if it becomes cluttered and confused by nonessential information. It contains the following information:



- a.* Initial point.
- b.* Regulating point.
- c.* Destination.
- d.* Route names or numbers.
- e.* Mileage between cities.
- f.* Key road junctions and crossroads.
- g.* The larger towns and cities on the route.
- h.* Important bridges and railroad crossings.
- i.* Direction (magnetic north).

## **51. MARCH ORDER**

The march order for the battalion is issued to subordinate commanders and staff officers after the order from higher headquarters has been received and plans for the march have been completed. The order must be complete, covering all phases of the march; it should so far as possible cover all situations that might arise during the movement. The order should be oral except for such accompanying material as strip maps, overlays, and maps, and should include the following:

- a.* Destination.
- b.* Route.
- c.* Rate of march (may be SOP).
- d.* Order of march.
- e.* Location of initial point.
- f.* Time of passing the initial point.
- g.* Details for any security to be established (may be SOP).
- h.* Scheduled halts (may be SOP).
- i.* Distances between vehicles and march units (may be SOP).

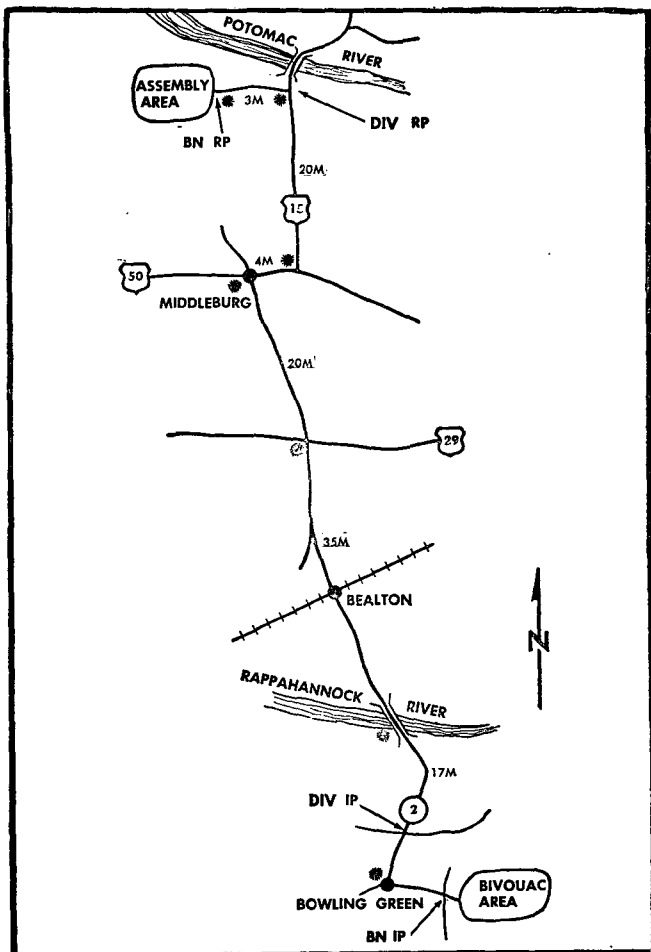


Figure 14. Sample strip map; numbers indicate distances in miles between asterisks.

- j. Traffic control measures (may be SOP).
- k. Communication.
- l. Location of command post during the march (may be SOP).
- m. Location of the regulating point (RP).
- n. Time the unit is to clear the RP and any other critical points along the route of march.

## 52. NIGHT MARCHES

a. In the combat zone, most marches are conducted during the hours of darkness. In many areas even blackout lights are prohibited. The reconnaissance battalion must be trained to conduct night marches under all types of conditions. The same principles that govern a daylight march apply with minor adaptations, such as decreased speed and decreased distances. Special attention must be given to the planning and execution of night marches; and route reconnaissance, road markers, alertness, supervision, and leadership become doubly important. Constant practice offers the most valuable training, and efforts should be made to conduct some of this practice over unfamiliar terrain.

b. Darkness increases the difficulty of control, and necessitates decreased speed, decreased distances, and increased reconnaissance and security. Whenever a halt is made during a night march, either the vehicle commander or the assistant driver must dismount and make contact with the preceding vehicle in the column. Special precautions must be taken to insure that no part of the

column is held up, when the march is resumed, because a driver or crew has fallen asleep during the halt.

### **53. MARCH SOP**

The battalion should prepare a standing operating procedure for a march. This SOP should cover the nonvariable factors of march technique, such as command and staff supervision, organization of advance groups, designation of air sentries, principles of march discipline, and location of trains.

### **54. MARCH DISCIPLINE**

March discipline, a vital factor in the execution of an efficiently conducted march, includes the following points:

*a.* Speeds and distances must be strictly observed. In resumption of the march and in halting, control vehicles must make gradual speed changes. The approach to, passage through, and departure from obstacles, cities, and towns must be carefully controlled. The opening and closing of gaps between vehicles and march units must be gradual (fig. 9).

*b.* March units and serials must arrive at and clear control points at the designated time. Failure to clear key points at the proper time may deny the use of the route to other units or result in traffic jams, which prevent movement of units and supplies.

*c.* Loading of vehicles must be uniform and



*Figure 15. To insure proper control of the march column, vehicle commanders must be alert to pass on visual signals.*

orderly, with the items necessary to combat readily accessible.

d. Vehicle commanders use arm and hand signals, and insure that all such signals are obeyed and are relayed to the following vehicles (fig. 15).

e. Vehicle commanders signal vehicles doubling the column to pass when it is safe to do so.

f. Vehicle commanders maintain a position from which they have unobstructed observation, remain alert, keep close control of their vehicles and crews, and do not permit straggling (in which vehicles drop out of the column at will).

g. Vehicle commanders of disabled vehicles clear the road, signal the rest of the column to pass, and post the necessary markers. After the necessary repairs have been made, the vehicle closes up to its proper place during subsequent halts. If an officer's vehicle is disabled, he mounts another vehicle and continues with the column.

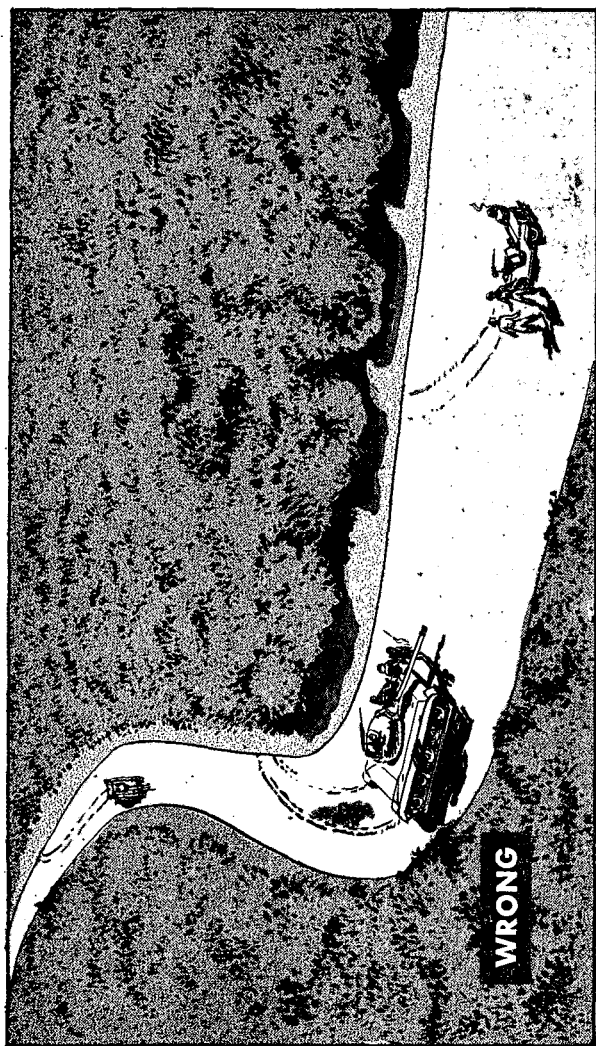
h. Air sentries remain alert at all times; planes are fired upon *only* if they attack or on order of an officer.

i. All vehicles clear the road at halts, and all vehicles simultaneously resume the march from a halt (figs. 16 and 17).

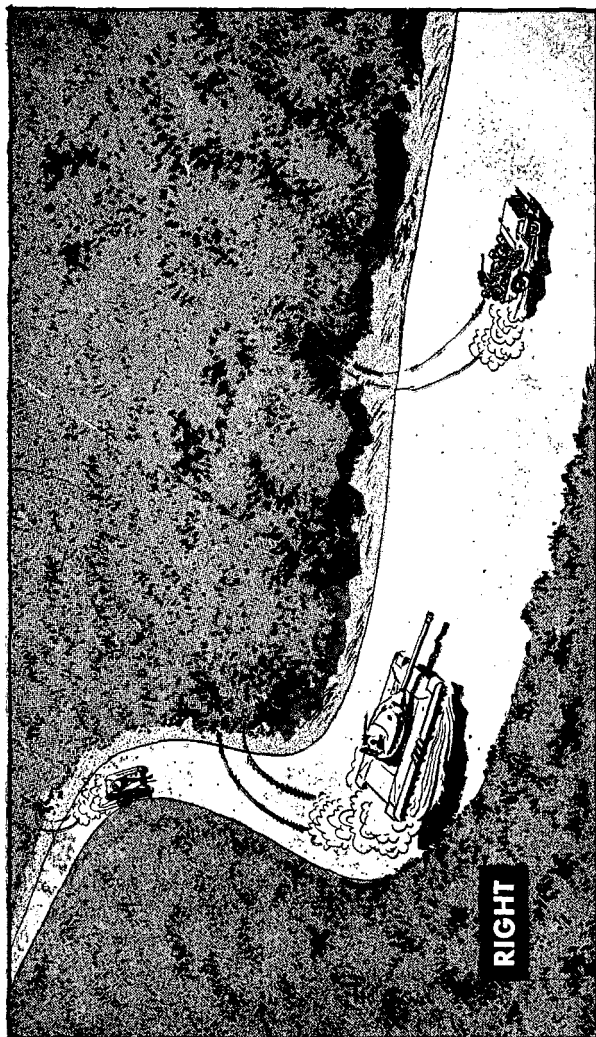
j. Crews conduct prescribed vehicular checks at the halts.

## 55. MARCH TRAINING

Continuous and progressive practice is the best method of preparing a unit for the proper and efficient conduct of a mounted march. The train-



*Figure 16. When re-forming the column after a halt, vehicles should not move onto the road and halt.*



*Figure 17. When re-forming the column after a halt, vehicles move directly to their proper place in column and keep moving.*



ing must begin with individual crew training. Each crew must become proficient as a team in driving, maintenance, and communication before it is permitted to engage in organized column marches. Units must receive practice in short-distance marches in platoon and company columns before engaging in long, larger-unit marches. The development of march-trained units requires energetic leadership and constant constructive criticism. Corrections should be immediate where necessary but whenever possible should be made *through command channels*. For example, the battalion commander should inform the company commander of deficiencies within his company instead of informing the individual crews themselves, unless the case in question is endangering men or matériel. On-the-spot corrections of a single vehicle should be directed to the vehicle commander and not to the driver. When deficiencies are reported, they must be specific, giving the time, place, and exact nature of the violation. Officers checking initial points and observing the march of the column should make notes on both good and bad points; these notes should then be the basis of a critique which should be held by the battalion commander following each day's march during the training period. In the conduct of the critique, the value of favorable comment must not be underestimated.

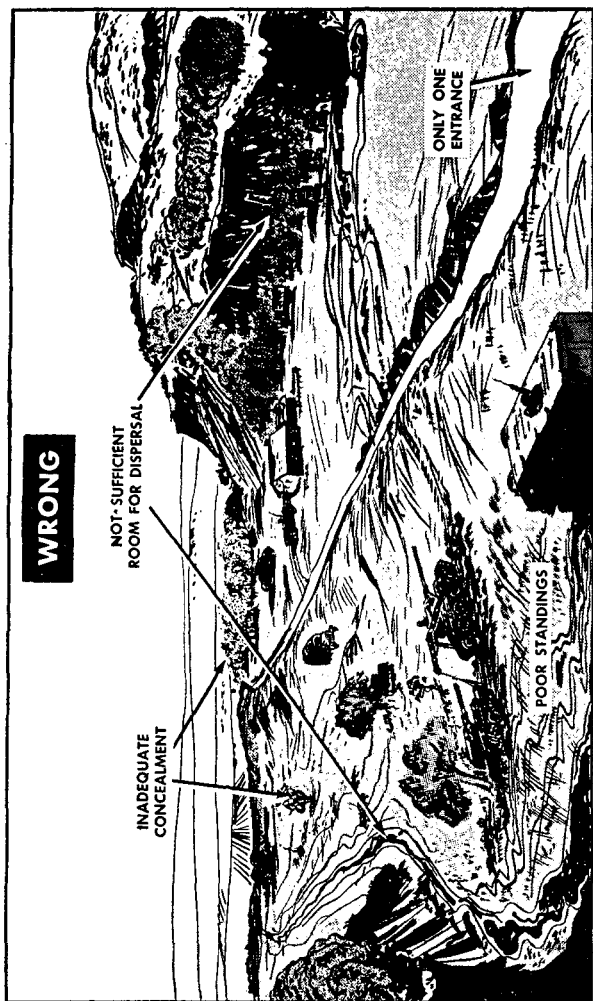
### 56. GENERAL

A bivouac area is a preselected piece of terrain, generally in a rear area and out of direct contact with the enemy, where a command rests and prepares for further movement. In a bivouac area, the possibility of contact with the enemy, except by air, is remote; and it is not intended that troops be committed to action from this position.

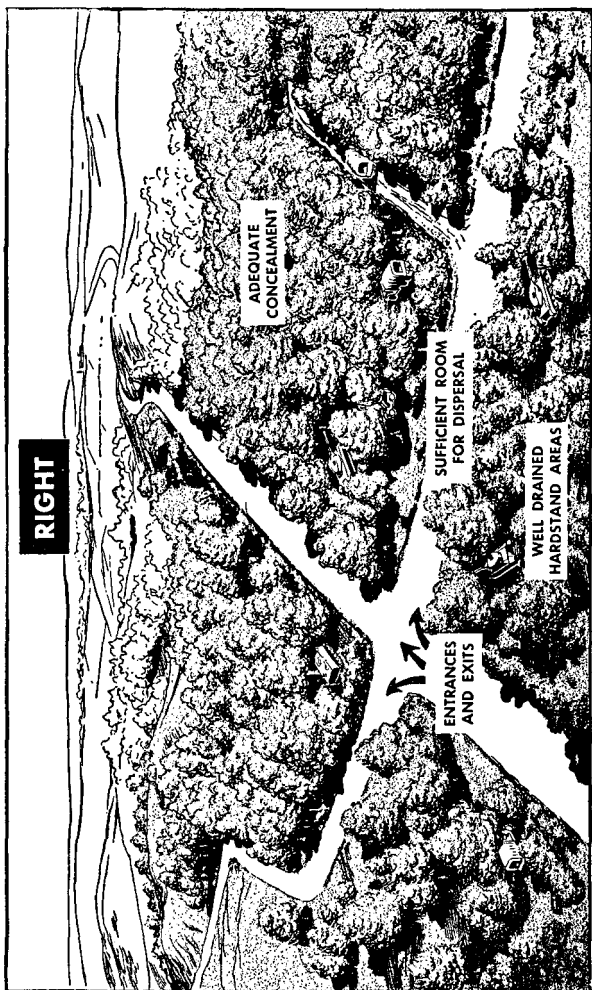
### 57. CHARACTERISTICS OF THE BIVOUAC AREA

*a.* Prior to final selection of a bivouac area (figs. 18 and 19), a map reconnaissance and, if possible, a personal reconnaissance are made of the proposed area. Essential characteristics of a bivouac area include—

- (1) An area large enough to permit normal dispersion of vehicles; this is approximately 50 yards between vehicles.
- (2) Firm, all-weather standing for both wheeled and tracked vehicles, and smooth ground to facilitate vehicular maintenance and movement of supply and other vehicles through the area.
- (3) A sufficient number of entrances and exits to permit rapid movement in any direction. The entrances must be in good enough condition to allow vehicles to leave the road and occupy the bivouac area without materially reducing speed.



*Figure 18. A poor bivouac area.*



*Figure 19. A good bivouac area.*

(4) Concealment from air and ground observation.

(5) Natural terrain protection.

b. Characteristics which are not essential but are desirable include—

(1) An adequate water supply within or near the area.

(2) Suitable shelter for personnel.

(3) Proximity to the services required for maintenance and rehabilitation for both vehicles and personnel.

## **58. ADVANCE PARTY**

a. When the reconnaissance battalion is to move to a new bivouac area, it sends an advance party to the new area as soon as possible. When the battalion is part of a larger command, this party accompanies the advance party of the larger command. The battalion advance party normally is composed of representatives of all companies and attached units in the battalion. The advance party should thoroughly reconnoiter the area, furnish any needed security, and make the necessary improvements on entrances and routes within the bivouac area. Its operations should be covered in the standing operating procedure of the unit.

b. The instructions to the advance party should include information as to the approximate length of time the men will be out and the individual equipment to be taken. The standing operating procedure should specify the special pioneer equipment to be carried; instructions must cover any additional special equipment needed.

c. If the battalion is part of a larger command, the advance party officer of the larger force designates the area that the battalion will occupy. If the battalion is operating alone, the battalion advance party officer selects the area from a general area assigned by the battalion commander. The battalion advance party officer rapidly reconnoiters the area, divides it into company areas, and posts markers to insure that the units move into their areas with as little confusion as possible. Company personnel in the advance party further organize their assigned areas. The battalion officer also selects a tentative location for the battalion command post, prepares recommendations for the security of the area, and makes a circulation plan. It is desirable to have the service and maintenance elements centrally located in the area and near the main axis, or main road through the area. Special attention is given to insuring suitable working conditions for the maintenance platoon. The advance party officer should also reconnoiter the immediate vicinity of the bivouac area for a suitable landing strip for Army aircraft.

## **59. OCCUPATION OF BIVOUAC**

a. Upon the arrival of the battalion at the new area, it is essential that the units move off the road, and clear the route of march, without halting. The posting of markers, the selection of routes, and the allocation of areas by the advance party are all done with the objective of clearing the battalion from the route of march without

halting and without obstructing the movement of other units (fig. 20). This requires the aggressive action of all guides and commanders and necessitates the closest supervision by the battalion commander and members of his staff. To facilitate occupation of the bivouac, the area of the leading unit should be located farthest along the entrance route. Areas of units following should be located successively to the rear, on alternate sides of the route. After the march serial has cleared the route, any desired adjustments of vehicles can easily be made without holding up the flow of traffic.

b. If the battalion is marching as part of a larger command, it may be released from column control, as a serial, at the higher command's regulating point. It may then be required to march for some distance as a serial before its own march units break away. This may require the battalion to have a battalion regulating point where guides pick up the companies and move them into the new area. These regulating points may be designated in advance if the necessary information is available. In all cases, guides should be on the alert to recognize the leading elements of their respective units, so that they can lead their units from the column without interrupting the march of the remainder of the serial (fig. 21).

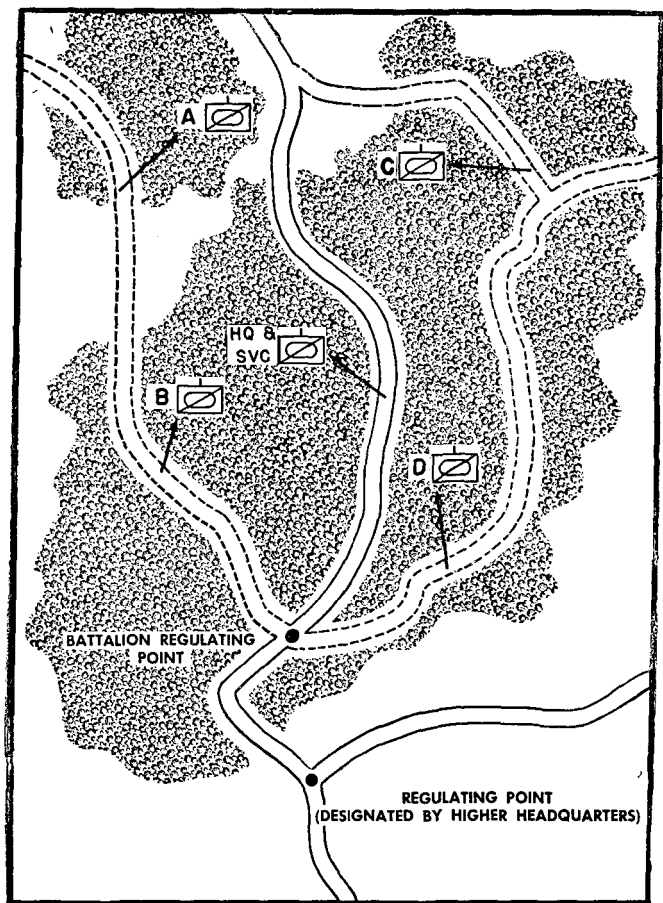
## **60. SECURITY IN BIVOUAC**

a. Security in bivouac is obtained by concealment, by the utilization of natural or artificial obstacles, by local security measures, by reconnais-



*Figure 20. When the battalion occupies a bivouac, markers are posted at the entrance to each company area.*





*Figure 21. Movement into bivouac or assembly area.*

sance, and by the establishment of an outpost system.

b. Although a bivouac is normally so located that there is little chance for contact with enemy troops, measures must be taken to insure that the functions performed in the bivouac are not interrupted by curious or unfriendly inhabitants of the area. For intelligence reasons, local inhabitants must not be permitted to gain free access to the bivouac. Preparations must be made for countering guerrilla action and unexpected enemy penetrations.

## **61. COMMUNICATION AND LIAISON IN BIVOUAC**

The signal communication system of the reconnaissance battalion in bivouac consists of messenger, wire, radio, and visual means. Local wire lines may be laid to the companies and to various service activities, such as the supply and maintenance platoons and the administrative and personnel section (if present with the battalion). The extent of wire communication is dependent only on the amount of equipment and time available. Each company sends a liaison agent or a messenger to the battalion command post; the battalion sends a liaison officer to the next higher unit. Use of radio within the battalion is kept to a minimum for security reasons and also in order that operators may be rested and radios thoroughly maintained. Messengers are used extensively.

## **62. DEPARTURE FROM BIVOUAC**

*a.* Prior to departure from the bivouac, the battalion issues a warning order. Timely issuance of this order will facilitate the completion of all necessary preparations for the march. Each subordinate unit notifies battalion headquarters when its preparations have been completed and it is ready to move.

*b.* When the battalion is marching as part of a larger command, a liaison officer, with radio-equipped vehicle or messengers, is sent to the unit which precedes the battalion in column. This officer keeps the battalion commander informed as to the progress of that unit, so that the battalion will be able to move out so as to reach and clear the IP at the prescribed rate of march and distance without having to halt before reaching the IP. Similar arrangements are made by subordinate units of the battalion. This is especially necessary in night movements.

## **Section IV. RESUPPLY AND MAINTENANCE IN BIVOUAC**

### **63. RESUPPLY IN BIVOUAC**

In bivouac, resupply of ammunition, fuel and lubricants, rations, water, and spare parts is accomplished throughout the battalion. In addition, if sufficient time is available—

*a.* Requisitions for needed supplies, particularly class II and IV (clothing and equipment), are prepared and submitted to higher headquar-

ters; items to fill shortages are drawn and issued. Close attention should be paid to salvage and repair of unserviceable items.

b. Supply records should be checked against property, and necessary action should be taken to bring these records up to date.

c. Bathing and laundry facilities should be made available. These facilities are normally provided by higher headquarters without special request. However, the battalion commander must insure that adequate transportation is made available to the companies to permit maximum use of these facilities.

#### **64. MAINTENANCE IN BIVOUAC**

Vehicular inspections and maintenance are of primary consideration when the battalion is in bivouac. Vehicle crews, company maintenance personnel, and the battalion maintenance platoon should do everything possible to insure efficient vehicular operation during the next tactical phase. Particularly, they should complete all operations which it is not practical to perform during actual operations. All vehicle engines and suspension systems should be thoroughly checked; and all weapons and signal equipment should be inspected, cleaned, and placed in the best possible condition. Matériel which the battalion cannot repair is evacuated to the supporting division service agency concerned.

## **CHAPTER 3**

### **SECURITY MISSIONS**

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#### **Section I. GENERAL**

#### **65. GENERAL**

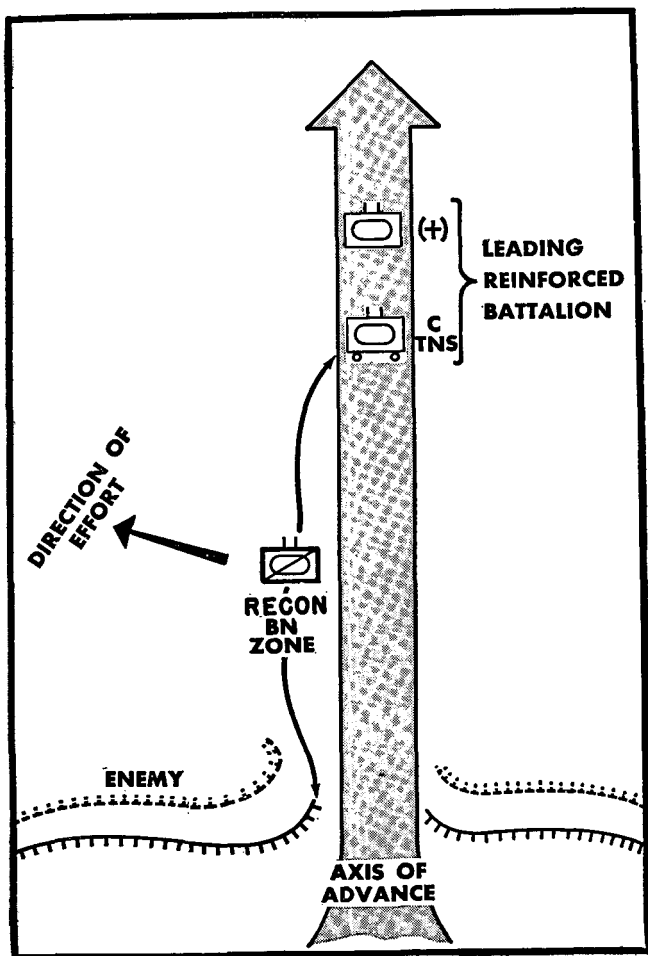
*a.* Many of the missions assigned to the reconnaissance battalion are security missions. To accomplish these missions, the reconnaissance battalion may employ various offensive or defensive tactics as well as perform reconnaissance and counterreconnaissance operations. Although protective in nature, security missions may best be accomplished by offensive action on the part of the battalion. Security and reconnaissance missions are complementary, and one cannot be performed without accomplishing elements of the other. For instance, a unit employed on a reconnaissance mission well to the front or flanks of the main element is also providing a certain measure of security; whereas a force engaged in a security mission performs reconnaissance and passes back information as it accomplishes its mission or moves to its objectives. When given a mission which is primarily that of security, the reconnaissance battalion regulates its maneuver on the force being secured. When employed on a

mission which is primarily that of reconnaissance, the battalion regulates its maneuver on the enemy which it is seeking. Bold and aggressive action normally produces more satisfactory results than stealth and secrecy.

b. The reconnaissance battalion is frequently used as an economy force (par. 3) on security missions to relieve other units from such tasks. The relieved units may then be employed to strengthen the division main effort. In furtherance of its security mission, the battalion is frequently required to attack in order to drive the enemy from positions which threaten the security of units making the main effort.

## **66. FRONTAGES IN SECURITY MISSIONS**

The reconnaissance battalion may be employed over extended frontages when engaged in security missions. This is particularly true when the battalion is given a security mission on the flanks or front of the division. The enemy, the terrain, the number of enemy avenues of approach, and the formation of the force being secured are the basic factors that determine the extent of the battalion frontage. The stronger the enemy resistance, the narrower the frontage, since more concentration will be necessary to keep enemy observation and fire off the main body. In any security mission, the battalion's frontage normally is far greater than that of a leading tank or armored infantry battalion during an offensive action. The battalion commander must expect wide frontages and consequent dispersion of his forces in the majority



*Figure 22. Battalion zone of action for a flank security mission during a penetration.*

of his security and reconnaissance missions (fig. 22). He should take full advantage of the battalion's rapid mobility and excellent radio communication to overcome the disadvantages of dispersion.

## **67. ZONES IN SECURITY MISSIONS**

*a.* When engaged in a security mission, the battalion is normally assigned a zone of action. If the battalion is given a flank security mission, the zone is on one or both flanks of the division and necessarily is at right angles to the direction of the main effort. The zone normally begins at the combat trains of the leading tank or armored infantry battalions and extends to the rear far enough to insure accomplishment of the mission (fig. 22).

*b.* Under certain circumstances the battalion may be given a security mission in front or rear of the main elements of the division. For example, when the division, or a combat command, is consolidating and reorganizing on the objective, the battalion may be required to act as a covering force for the entire division or combat command zone or sector.

## **68. LIAISON IN SECURITY MISSIONS**

*a.* Liaison between commanders promotes a thorough understanding of each other's problems, missions, and plans. The reconnaissance battalion commander must continually practice command liaison; he does this by personal conversations with other commanders. He must see that liaison



is established with the headquarters to which his battalion is attached and with adjacent units. If the battalion is to be part of an attack made by the armored division through friendly infantry, command liaison should be established with those infantry elements through which the battalion will pass.

b. The battalion commander should make full use of his liaison officers to assist him in maintaining all necessary liaison. Each of the reconnaissance companies has mounted liaison agents which may be used between company and battalion. These liaison agents have a great deal of responsibility and should be selected with care.

## **69. USES OF ARMY AIRCRAFT IN SECURITY MISSIONS**

Army aircraft should be used extensively during the conduct of a security mission. By extending the commander's observation, they can be of great assistance when the battalion is furnishing security for a higher command. They may also be used as command transportation by the battalion commander; so used, they enable the commander to better supervise the battalion when it is employed over a wide frontage or on both flanks of the division. When dispersion of the battalion elements causes them to lose radio contact, the Army aircraft may be effectively used to relay radio messages (FM 20-100).

## 70. PREPARATION FOR SECURITY MISSIONS, GENERAL

*a.* As soon a sufficient information of a forthcoming operation is available, the battalion commander should issue a warning order to his subordinate commanders. At this time he also starts his estimate of the situation, which is continuous throughout his planning. He then makes a map and air photo reconnaissance and prepares to make a personal reconnaissance of the projected zone of operations. His personal reconnaissance may be made on the ground or from Army aircraft, or possibly both. If there is not sufficient time to make a personal reconnaissance on the ground or from Army aircraft, the battalion commander's plan must be based on the directive from higher headquarters and a map study. This directive will contain the mission and the assignment of a zone, or axis, or sector. It will also contain the designation of critical terrain features which must be secured to insure the security of the higher commander's main effort.

*b.* Except as noted in paragraphs 72 and 73, the battalion is rarely given attachments of tanks and armored infantry or direct-support artillery for security missions. However, an artillery liaison officer and an armored engineer reconnaissance section are frequently attached. The battalion commander's plan must include necessary coordination to insure adequate supporting fires and should also cover the employment of the engineer section for technical bridge and road reconnaissance.

*c.* The commander's plan, except that for a

covering force mission during a division advance, is normally based upon establishing and maintaining a system of strong points covering the area to be secured. These points are situated on commanding terrain and avenues of approach. This system is supplemented by mobile patrols moving between the strong points, by observation posts, and by listening posts. Whenever possible, observation is extended by means of observers in Army aircraft. Although the entire area of responsibility must be covered by observation or fire, the bulk of the battalion should be deployed against the strongest enemy threat. As large a reserve as possible should be held in a central location; this reserve may be employed to reinforce a strong point or possibly to launch a counterattack. The battalion may frequently be assigned so large an area that formation of a reserve is not possible; the battalion commander must then maneuver elements from a less threatened portion of the zone if he desires to reinforce a strong point or to launch a counterattack.

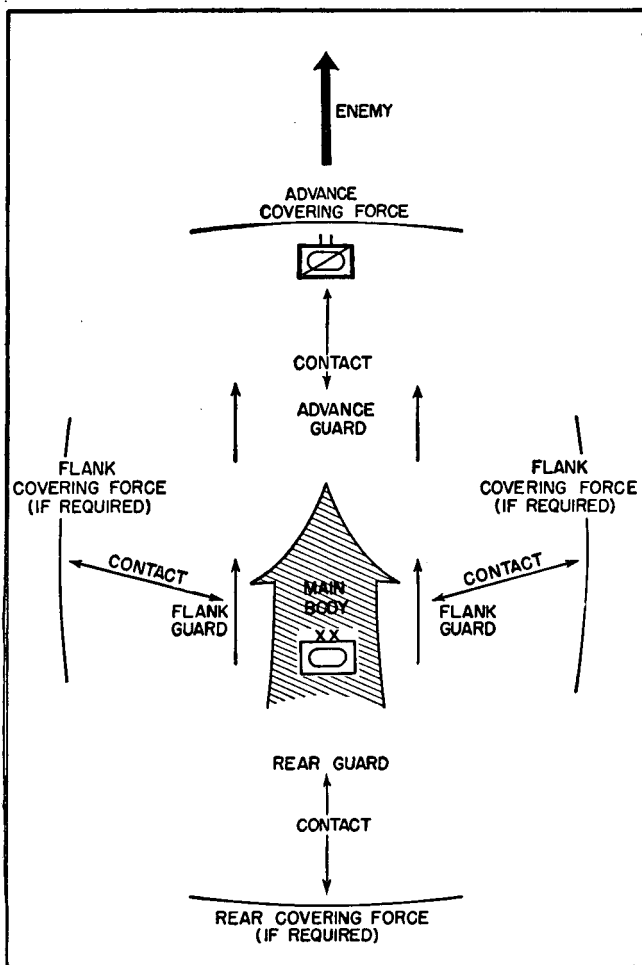
*d.* After the battalion commander has formulated his plan of action, based on his reconnaissance and his estimate of the situation, he issues his order for the operation. The battalion staff assists him by working out many of the details of the plan and final order. The order may be written or oral, complete or fragmentary. It may be issued to assembled unit commanders or to unit commanders in turn. In the latter case, the company commander may receive only that part of the order pertaining to his unit. If there is not

sufficient time for the battalion commander to issue the order in person, he may issue fragmentary orders by any appropriate means of communication. Subordinate commanders must receive sufficient detailed information to enable them to understand and execute the plan of action.

## **Section II. COVERING FORCE**

### **71. GENERAL**

The reconnaissance battalion or elements of the battalion will often be employed as a covering force (FM 100-5) for the armored division during an offense (fig. 23), during a defense (figs. 24 and 25), or during a withdrawal (fig. 26). The battalion or elements of it may also be employed as a covering force for a major subordinate command of the division when that command is engaged in a separate or independent mission. Operating as a covering force, the reconnaissance battalion is employed beyond advance, flank, or rear security detachments of the division or major subordinate commands of the division. As such it has the mission of making an early development of the situation; defeating hostile resistance within its capabilities; executing counterreconnaissance; and delaying, deceiving, and disorganizing the enemy until the force covered can execute its mission or prepare for future action. It engages the enemy in any type of combat necessary for the successful accomplishment of this mission. The battalion normally operates under the direct control of the commander of the unit covered.



*Figure 23. The reconnaissance battalion employed as a covering force during a division advance.*

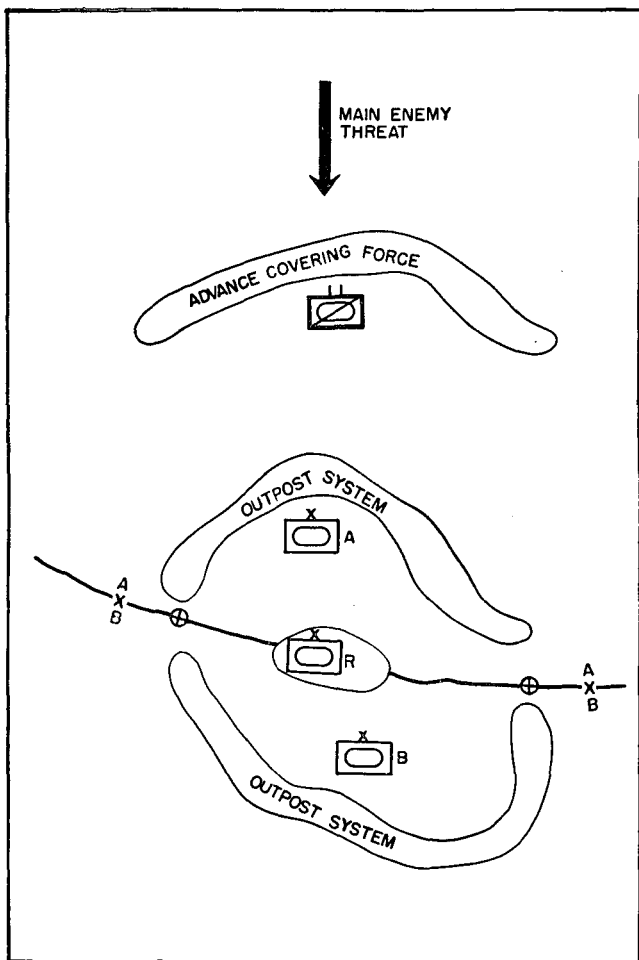
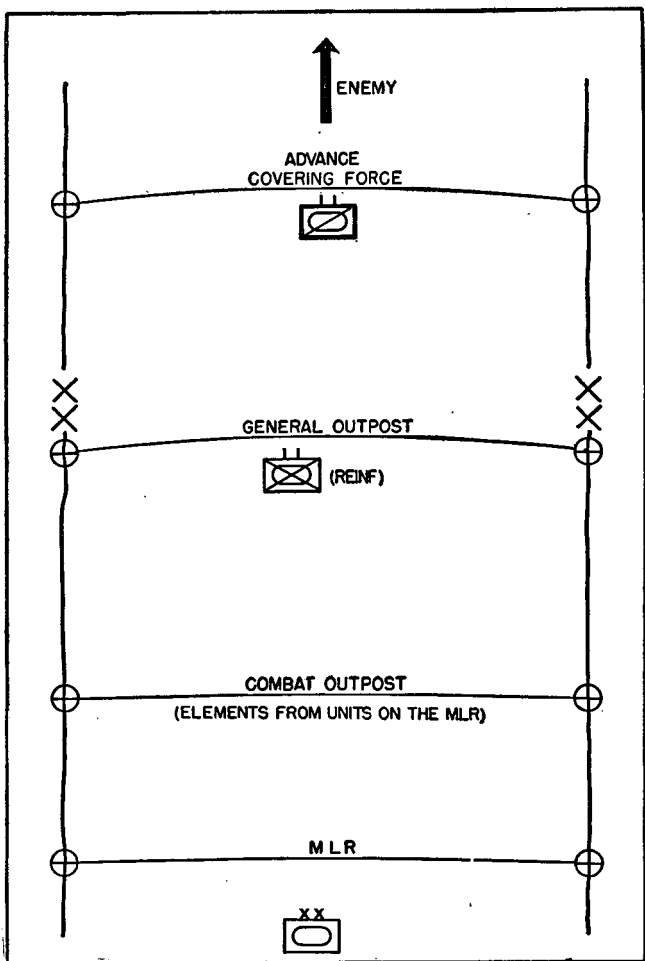
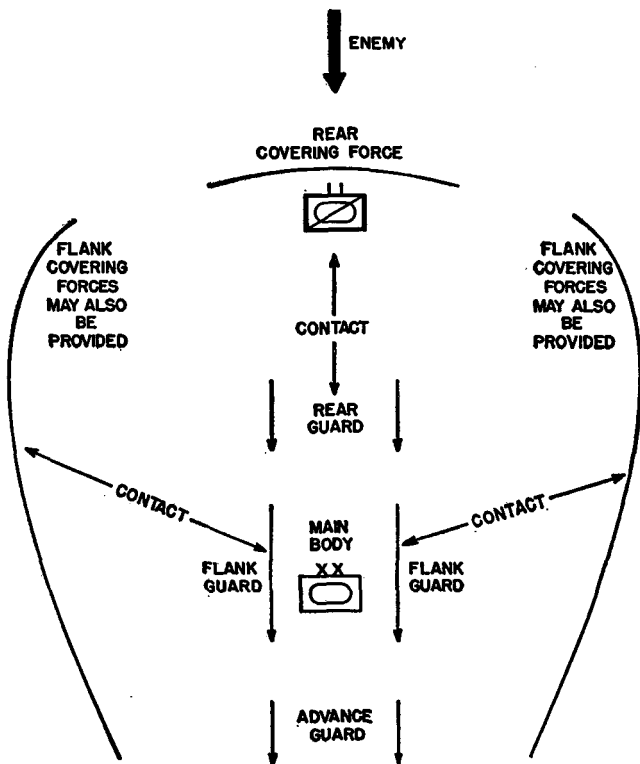


Figure 24. The reconnaissance battalion employed as an advance covering force in front of the outpost system in mobile defense.



*Figure 25. The reconnaissance battalion acting as an advance covering force during a sustained defense.*



*Figure 26. The reconnaissance battalion employed as a rear covering force in a division withdrawal.*

## 72. OPERATION OF THE COVERING FORCE DURING A DIVISION ADVANCE

*a.* When operating as the covering force for the division during an advance, the battalion has the mission of developing the situation and defeating enemy forces within its capabilities. In accom-



plishing this mission, it is frequently necessary for the battalion to seize and hold critical terrain features from which the division can base future operations. Whenever this task is included in the mission, the battalion commander may expect attachments of tanks, armored infantry, and engineers, with artillery placed in direct support. The battalion commander's plan must include detailed coordination of and instructions to these supporting units. Employment of these units in the attack and defense of terrain features is discussed in paragraphs 110 and 152. The higher commander should be careful to insure that some major combat element of the armored division will be in position to intervene or assist in case the reconnaissance battalion is attacked by a superior force.

b. To perform the mission of advance covering force, the battalion normally advances with reconnaissance companies abreast in an assigned zone. A zone is used in order to insure complete coverage and to eliminate the possibility of bypassing enemy elements; however, if time is critical and the enemy force is known to be in a definite locality, the battalion may utilize a column movement or an axis or axes until contact with the enemy is gained. When using a zone of advance, the battalion commander must employ sufficient companies abreast to make certain that his zone is thoroughly covered, but at the same time should retain sufficient strength in reserve to influence local actions. The existing road net will have a material effect on the speed and efficiency of the advance and therefore should be thoroughly

studied by the battalion commander prior to the operation. The reserve element marches behind the reconnaissance company which will most probably contact the enemy, or centrally where it can most readily support any of the forward elements of the battalion.

### **73. OPERATION OF THE ADVANCE COVERING FORCE IN THE DEFENSE**

*a.* When the armored division is engaged in either the sustained or mobile defense, the reconnaissance battalion may be employed as the advance covering force if this force is not provided by higher headquarters. The sector assigned to the battalion usually covers the entire division front in the sustained defense but only the most critical part of the front in the mobile defense. The battalion commander must coordinate his movements within the sector with those of any adjacent covering forces. If close contact with the enemy has not been established, the battalion is normally required to make a reconnaissance to gain and maintain enemy contact. Until contact is gained, this is conducted as a reconnaissance mission (ch. 4).

*b.* When acting as the advance covering force, the battalion has the mission of providing early warning of enemy approach and of disorganizing, deceiving, and inflicting maximum delay on the enemy. The battalion is employed beyond the general outpost (sustained defense) or outpost system (mobile defense). When forced to withdraw, the battalion fights a delaying action back

through the general outpost or outpost system, avoiding serious engagement with the enemy. See paragraph 180 for conduct of a delaying action.

c. The battalion sector is subdivided into company sectors, and the reconnaissance companies are deployed along a line which is usually prescribed by the commander of the force being covered. This line is organized as an outpost system consisting of observation and listening posts as a warning net and of strong points behind this net; these posts and strong points are located on commanding terrain and dominate the enemy avenues of approach. The frontage normally associated with this type of covering force mission frequently precludes use of organic elements as a battalion reserve. Therefore, the observation posts and strong points must be so placed that maximum delay can be executed against an enemy threat. During daylight hours the observation posts are located in the best positions to observe enemy actions; at night they act as listening posts and are moved to the vicinity of possible enemy avenues of approach. Both the observation posts and the listening posts are supplemented by vehicular and foot patrols and, during daylight hours, by extensive use of Army aircraft.

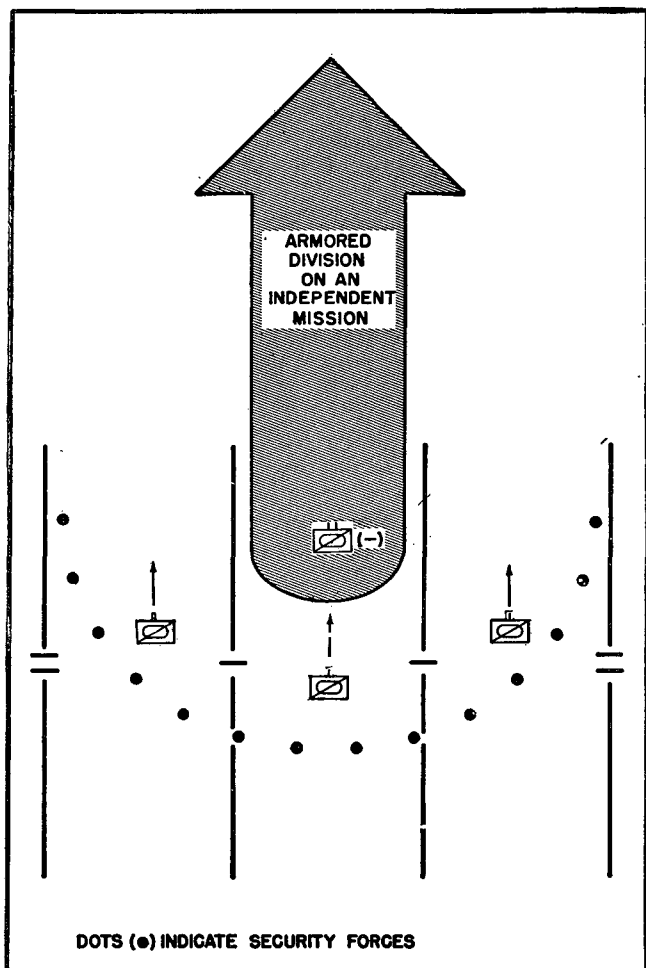
d. To further strengthen the security of the battle position or outpost system, the higher commander may attach tanks and armored engineers to, and place artillery in direct support of, the battalion. The frontage associated with an advance covering force mission usually requires employment of all the reconnaissance companies along

the position being secured; therefore the attached tanks are normally held as the battalion reserve and used as a counterattacking force to repel small enemy thrusts. They may also be used to assist, by fire and maneuver, the withdrawal of the reconnaissance companies in the battalion's movement back through the higher command's general outpost or outpost system. The armored engineers assist the withdrawal by erecting obstacles in depth, by preparing and executing demolitions, and by laying mine fields whenever time permits. The field artillery is given normal fire missions, but emphasis is placed on long-range fires to cause the enemy to deploy as early as possible.

*e.* The battalion commander must thoroughly plan and coordinate the withdrawal through the higher command's main defensive works. Prearranged signals, clearly designated routes of withdrawal, and thorough coordination of radio communication will facilitate this movement. As the battalion is forced closer to the battle position or outpost system, every effort is made to deceive the enemy as to the true location of these positions. Development of a heavy volume of fire of all types, and withdrawals around the flanks of the battle position or outpost system, facilitate both the withdrawal and deception.

#### **74. REAR COVERING FORCE**

*a.* The reconnaissance battalion may be employed as a rear covering force for the armored division (fig. 27) when the division is on a separate mission or has advanced beyond the



*Figure 27. The reconnaissance battalion acting as a rear covering force for an armored division.*

range of support from adjacent flank units. The battalion deploys beyond the rear security elements of the armored columns.

b. The battalion commander forms this rear covering force by assigning zones to the reconnaissance companies. The companies then deploy security forces to their rear. The battalion commander maintains as strong a reserve as possible to be used as a counterattacking element against an enemy penetration of the force. The battalion's rate of advance is adjusted to the movement of the division. If the division is advancing slowly, the battalion advances from one dominating terrain feature to another, establishing a hasty defense line on each succeeding terrain feature. On the other hand, if the division is advancing rapidly, the covering force may only briefly occupy each terrain feature. The rearmost element of the security force consists of small vehicular patrols working directly under the various company commanders. The advance can easily be controlled by the use of phase lines designated by the battalion commander.

### **Section III. FLANK SECURITY FORCE**

#### **75. FLANK SECURITY MISSIONS, GENERAL**

a. The reconnaissance battalion is frequently given the mission of securing one or both flanks of the armored division (or a combat command) during a penetration or exploitation. This mission may be that of a covering force, or it may be that of a flank guard when higher headquarters

furnishes a flank covering force. If the battalion is given the mission of securing both flanks, the higher commander normally indicates which flank is considered more critical. The battalion commander must then dispose his unit accordingly but personally remains on the more critical flank.

b. During a penetration, the leading reinforced battalions of the armored division are responsible for the security of their own flanks. The reconnaissance battalion's security responsibility begins at the rear elements of the leading reinforced battalions and extends to the flank of the friendly troops the division has attacked through; at these two points, the battalion maintains physical contact. Contact between units within the battalion may be physical, visual, or by radio, dependent upon the length of the formation and the enemy situation.

## **76. PLANS, FLANK SECURITY MISSIONS**

a. Before passing through the gap created by the leading reinforced battalions, the battalion commander must thoroughly plan his movement (fig. 28). The battalion may have an axis of its own, or it may initially be integrated in the column of one of the combat commands. If the latter is necessary, the location of the battalion elements in the column is dictated by the intended employment of the unit. The next phase of the reconnaissance battalion commander's planning covers his proposed dispositions on the flank of the division. The battalion should be far enough out on the flank to keep enemy direct fire and, if possible,

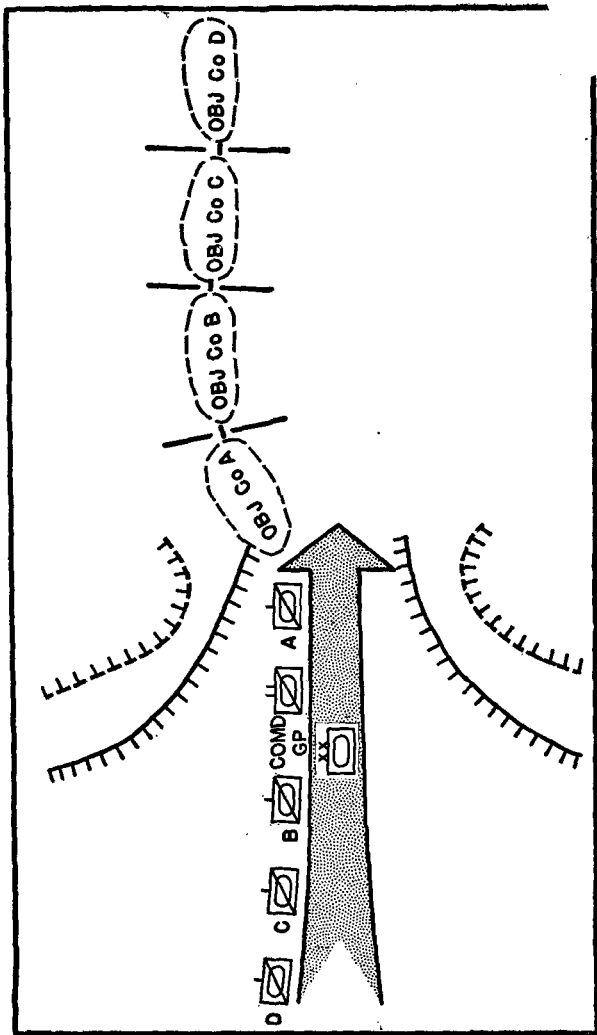


Figure 28. The battalion commander's plan for a stationary flank security screen.

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ound observation from the division main effort. At the same time, the battalion should be within supporting distance of the division in case a major enemy counterattack should be launched on that flank.

b. In making his plan, the battalion commander starts by indicating a definite line of objectives, to include those critical terrain features assigned by higher headquarters. This series of objectives begins at the expected point of contact with the friendly troops on the shoulders of the penetration and extends to the division final objective. He should also make tentative plans for dispositions on the final objective as directed by division headquarters.

- (1) Starting with the first objective, the battalion commander next decides how many of the indicated objectives can be secured by one reconnaissance company. He then indicates a company boundary at right angles to the direction of the main effort. Surveying the next objectives, he again decides how many objectives each successive company can handle and establishes company boundaries. Thus a zone of operation and objectives are assigned to each company in the battalion.
- (2) These company objectives are normally terrain features which dominate and control enemy avenues of approach. One company is most efficiently employed when given responsibility for only one

main avenue of approach; however, a company can effectively secure three or more less important avenues of approach. Efficiency of the company is reduced in proportion to the number of avenues or objectives assigned. The objectives assigned the companies may be hills, towns, crossroads, bridges, passes, or other terrain features which can be utilized to assist in halting an enemy advance.

c. The battalion will pass through the initial gap of a penetration in a column formation and, if possible, on its own axis of advance; however, due to the narrow front normal in a penetration, the battalion may be forced to use the same road net as the leading elements of the division. Only by close liaison and thorough planning can the battalion avoid confusion over road space. To conserve road space, only one reconnaissance company initially follows the leading reinforced battalions. The battalion command group is immediately in rear of this leading company. The remainder of the battalion follows as close behind as possible. The build-up of the security formation is based on the rate of advance of the main effort and the number of critical terrain features or avenues of approach which must be covered by the battalion.

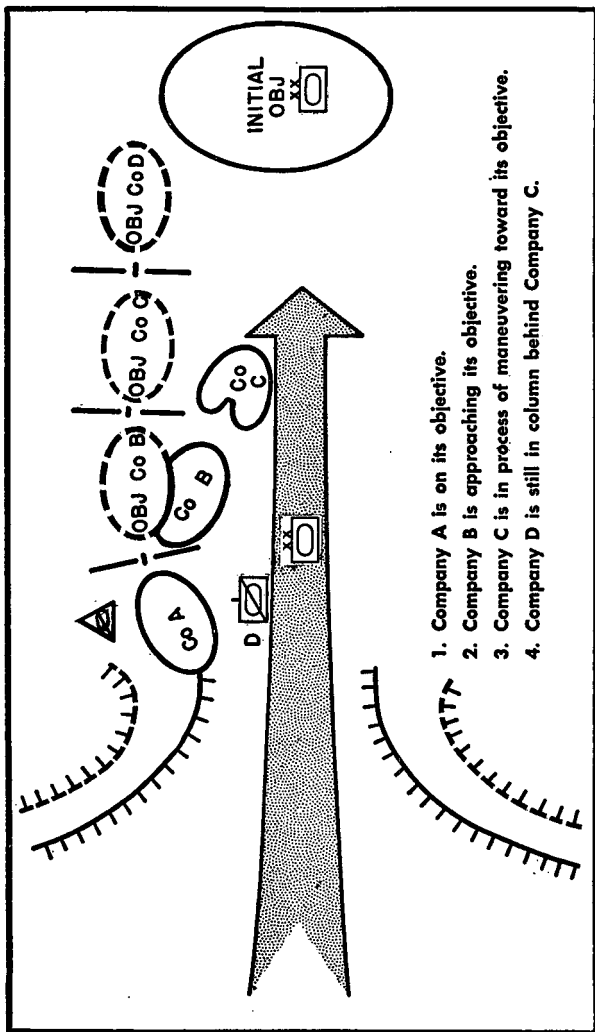
## **77. OPERATIONS, FLANK SECURITY MISSIONS**

a. The reconnaissance companies pass through the initial gap in the order in which they are to

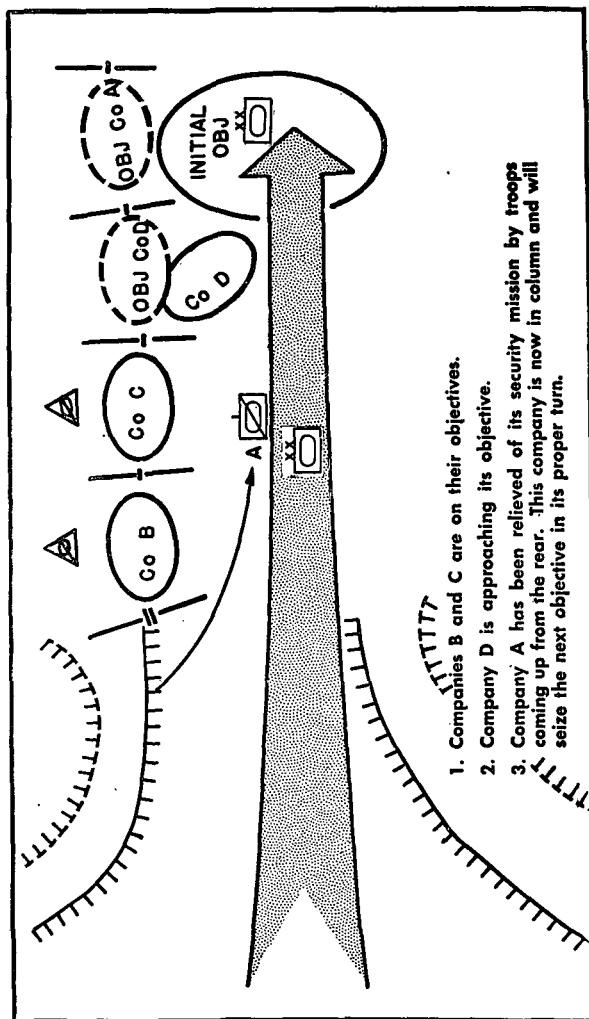
be committed. The first company through then moves to the flank and advances in its zone to secure the initial objective. The second company in column continues to advance and then moves to the flank in its zone to secure its objective or objectives. The remaining companies are employed in a similar manner (fig. 29).

b. Overextension of the reconnaissance battalion may render it impotent to furnish the protection desired. Therefore, as the division advances, the reconnaissance battalion must also displace toward the division objective. It is expected either that friendly troops will replace the reconnaissance companies in the rear of the security formation, or that the rear of the flank will be left open. There are two methods which the reconnaissance battalion may employ to keep up with the division main body and at the same time furnish the required flank protection.

- (1) One method is that of leapfrogging the rear company forward to take over the flank as a gap develops between the leading reconnaissance company and the leading elements of the division (fig. 30). The battalion commander must plan this movement so the rear company will arrive at the head of the formation in sufficient time to take over the gap as it begins to develop. This method is usually used when the division advance is slow and strong flank protection is desired.
- (2) When the armored division is advancing rapidly, the leapfrogging method of



*Figure 29. Establishment of a stationary flank security screen by the reconnaissance battalion.*



*Figure 30. Extension of a stationary flank security formation by leapfrogging reconnaissance companies.*

flank protection described above is too slow. Usually, the faster the division moves, the less requirement there is for strong flank protection. Under such circumstances the flank protection desired may be most efficiently provided by use of a mobile formation (fig. 31). The battalion normally uses a column formation moving in the same direction as that of the main effort, adjusting the rate of advance to the movement of the rest of the division. The battalion may be deployed on two or more parallel routes. Although movement is parallel to the main advance, the battalion is still primarily concerned with the terrain and enemy to the flank. The rate of advance of the main elements of the division normally is such that the battalion will have sufficient time to secure, temporarily, all main avenues of approach and prominent terrain features. The battalion commander must indicate in advance which of these avenues of approach and terrain features are to be given special attention by the companies as they pass.

## **78. SECURITY, OPERATIONS ON TWO FLANKS**

a. The reconnaissance battalion may often be given a security mission on both flanks of the division (or combat command). The methods of executing this mission are the same as those already described, with the necessary tactical and



command adjustments. The major portion of the battalion is employed on the more critical flank. If the security threat appears to be the same on both flanks, the battalion may be split equally, two companies to each flank. In any event the battalion commander must plan and supervise the employment of both portions of his unit.

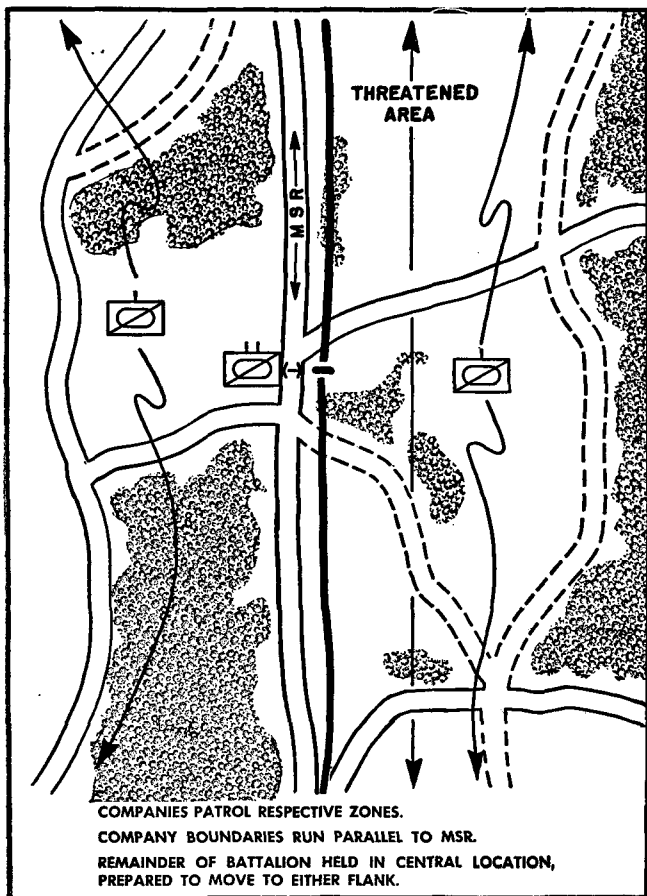
b. If the battalion is divided equally, the battalion commander should place himself on the flank which gives him the better control and radio communication with all of his command. When the bulk of the battalion is on one flank, the battalion commander normally remains with that portion of his unit. In either case he controls the elements on the other flank by radio, personal visits, messenger, and Army aircraft. He may also place the forward echelon on the axis of advance of the higher command; he can then maintain control of both elements by radio relay between the command group and the forward echelon, regardless of the location of the command group. If the action on the far flank requires a coordinated attack by the elements on that flank, the battalion commander may place one of the company commanders in charge of all the troops on that flank.

## **Section IV. GUARDING LINES OF COMMUNICATION**

### **79. GENERAL**

The method employed to guard lines of communication (fig. 32) varies according to the terrain, the road net, the length of the lines of communication, and the type of enemy action





*Figure 32. The reconnaissance battalion protecting a portion of the MSR.*

expected. The following two methods usually form the basis of any plan for the security of lines of communication.

a. If the lines of communication are threatened for only a short distance, sufficient companies are assigned sectors to insure that the battalion area of responsibility is completely secured. An outpost system is organized on avenues of approach and commanding terrain features in the same manner as that described in paragraph 70. The battalion commander should maintain as large a reserve as possible to counter any enemy threat to the lines of communication.

b. If the lines of communication are long and must be guarded over a great distance, much larger sectors are assigned to companies. Sufficient companies are assigned sectors to insure that both flanks of the main supply route are covered by a series of observation posts. These observation posts have the mission of giving warning of any enemy threat. The remainder of the battalion is used to patrol the main supply route and to escort convoys through the threatened area. The reconnaissance unit which is escorting the convoy holds the major portion of the unit in the forward part of the convoy and also establishes patrols to the front and rear. The security of each individual convoy is normally allocated to one reconnaissance company. However, the battalion commander must use such strength as he feels is necessary for any given escort mission. This type of supply route security is normally used during the exploitation or pursuit phase of combat.

## **Section V. FILLING A GAP**

### **80. GENERAL**

When a gap is created between two major units, the reconnaissance battalion is frequently employed to fill it. The mission of filling a gap is, in principle and technique of execution, a specific type of flank security. In filling a gap the reconnaissance battalion maintains physical contact with friendly units on both flanks of its line. In effect, the battalion is securing one flank of each of these units. To maintain this contact and cover the gap, it is necessary for the battalion to attack as the elements on either flank move forward. Planning and conduct of a battalion attack are discussed in chapter 5.

### **81. PLANS AND OPERATIONS, FILLING A GAP**

a. The width of the gap, the terrain, and the expected strength of enemy resistance usually determine how many companies are employed in line (fig. 33). These companies are given boundaries and objectives. The plan should require physical contact with both flank units and must be closely coordinated with the plans of these units. Within the battalion, contact between units may be physical, visual, or by radio. The battalion commander is responsible for clearing his zone of all enemy elements when so ordered, but he may not bypass enemy strong points without authority from higher headquarters. The battalion commander should hold as strong a reserve as possible and should utilize it to maintain the momentum of his

advance. Radio and phase lines are the normal means of controlling the advance in this type of operation. If phase lines are used, they should be coordinated with any being used by the units on either flank.

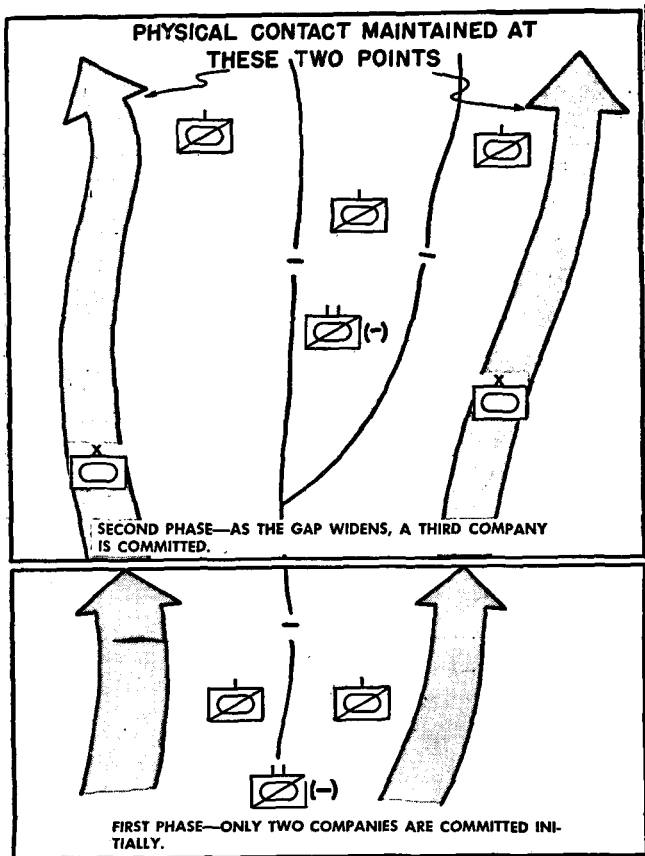


Figure 33. Filling a gap between two combat commands.

b. The companies move forward within their zones as the adjacent units advance. The mission will indicate if the battalion must clear the enemy forces within its zone. If the enemy strength is too great for the battalion to cope with successfully, the position should be contained until instructions are received from higher headquarters to bypass or await reinforcements. All enemy contacts are promptly reported to higher headquarters; this is extremely important in order to give the higher commander a clear picture of the enemy resistance along his entire front.

## **82. MAINTAINING CONTACT WITH A CORPS COVERING FORCE**

On many occasions the corps commander employs an armored cavalry regiment (light) as a corps covering force to the flanks or front of the major elements of the corps. Under these conditions it may be desirable for the armored division to maintain physical contact with the corps covering force, especially if the division is employed on the flank being covered. The reconnaissance battalion is the most suitable element of the division to gain and maintain physical contact with the higher command's covering force. This mission may be given the battalion regardless of whether the covering force is disposed on the flank or to the front (fig. 23). The mission is essentially one of filling the gap between the division and the corps covering force.

## **CHAPTER 4**

### **RECONNAISSANCE AND COUNTERRECONNAISSANCE**

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#### **Section I. TYPES OF RECONNAISSANCE**

##### **83. GENERAL**

Reconnaissance is the directed effort in the field to gather information of military value. This information is usually classified under the headings of the enemy, the weather, the terrain, and the enemy's resources. Reconnaissance operations performed by the battalion are normally classified, according to their proximity to the present front line, as battle reconnaissance and close reconnaissance. Virtually all missions assigned the battalion contain a reconnaissance requirement; on the other hand, the normal reconnaissance mission is partially one of security. The two are closely related (par. 65).

##### **84. BATTLE RECONNAISSANCE**

a. Battle reconnaissance is the directed effort by individuals and small patrols to gather information of the immediate battlefield area. It is made during or immediately before battle, when in close contact with the enemy. This type of recon-

naissance is best performed by the personnel of all units occupying forward positions or by units conducting an attack. Battle reconnaissance is characterized—

- (1) Dismounted patrolling, usually by selected personnel from the unit occupying the position.
- (2) Operation within the range of direct-support artillery.
- (3) Daylight observation from OPs and establishment of listening posts at night.
- (4) A continuous effort to gain information of enemy dispositions and identifications, terrain, changes in friendly troop locations, progress of the attack, and other EEL.

b. Battle reconnaissance missions are best executed at the level of the front-line battalion, company, platoon, and squad. Every combat battalion in the armored division executes battle reconnaissance for itself. Because of this fact, the reconnaissance battalion is rarely used to execute a battle reconnaissance mission for another unit.

## **85. CLOSE RECONNAISSANCE**

Close reconnaissance is the directed effort to gather selected information of the area of current tactical operations. Close reconnaissance furnishes the commander with the information upon which he makes his tactical decisions. Because of its rapid mobility and its facilities for communication, the reconnaissance battalion is well suited for executing close reconnaissance missions for

combat commands or the division. Close reconnaissance missions are characterized by—

*a.* Mounted or dismounted patrolling by a unit capable of fighting to get the necessary information.

*b.* Forward patrols closely supported by larger units of greater strength; these patrols may be armored or unarmored.

*c.* Aggressive movement during daylight and slower, more cautious movement during darkness.

*d.* A systematic search of an area, or an axis, to the extent of time and forces available.

*e.* After contact, an effort to determine the flanks of the enemy's main body or position.

*f.* Continuous reports covering the strength, composition, and dispositions of enemy elements.

## **Section II. RECONNAISSANCE OPERATIONS**

### **86. GENERAL**

*a.* On many occasions the division commander requires specific information which can best be gathered by the reconnaissance battalion. Reconnaissance missions normally performed by the battalion may be classified under four general headings—

(1) Operations on one or both flanks of a



higher command to locate an enemy force.

- (2) Reconnaissance of an extended obstacle, such as a river line or a series of passes.
- (3) Reconnaissance in front of a higher command in a vague or indefinite situation.
- (4) Reconnaissance of a bivouac area, assembly area, or attack position, for a higher command.

b. For these types of missions the reconnaissance battalion may be expected to make more rapid progress than any other combat element of the division, due to its lighter and faster vehicles.

## **87. RECONNAISSANCE FRONTAGES**

A reconnaissance mission is a specifically assigned task to search for useful information; the area being reconnoitered must therefore be thoroughly covered, and frontages must be assigned with this fact in mind. Visibility, terrain, anticipated enemy contact, and nature of the information sought are some of the factors that influence the width of the battalion frontage. Higher headquarters normally designates the frontage to be covered by the battalion, and the battalion commander must in turn designate zones to the reconnaissance companies. The following is based on excellent operating conditions but may be used as a *guide* in determining the width of zone that can be covered by units assigned reconnaissance missions:

	Dismounted Width of zone (miles)	Mounted Width of zone (miles)
Reconnaissance platoon---	$\frac{3}{4}$	2 (one main road and lateral routes).
Reconnaissance company --	2	5 (three main roads and lat- eral routes).
Reconnaissance battalion -	-----	10-20.
	Dismounted	Mounted
Average rate of advance--	$\frac{1}{2}$ mph---	5-10 mph.

### 83. RECONNAISSANCE OF ZONES, ROUTES, AND AREAS

a. Higher headquarters may prescribe a specific zone or routes when assigning a reconnaissance mission to the battalion. The battalion commander in turn prescribes the zone or routes for the individual companies. Responsibility is thus definitely allocated, and duplication of effort is prevented. Whenever possible, maximum freedom of movement should be allowed subordinate commanders when executing a reconnaissance mission. The more detailed the information required, the more time must be allowed for the reconnaissance.

b. When the enemy is disposed on a broad front, or when his location is in doubt, a zone of reconnaissance is normally assigned the battalion. Factors which determine the width of the zone are the condition and pattern of the road net, present

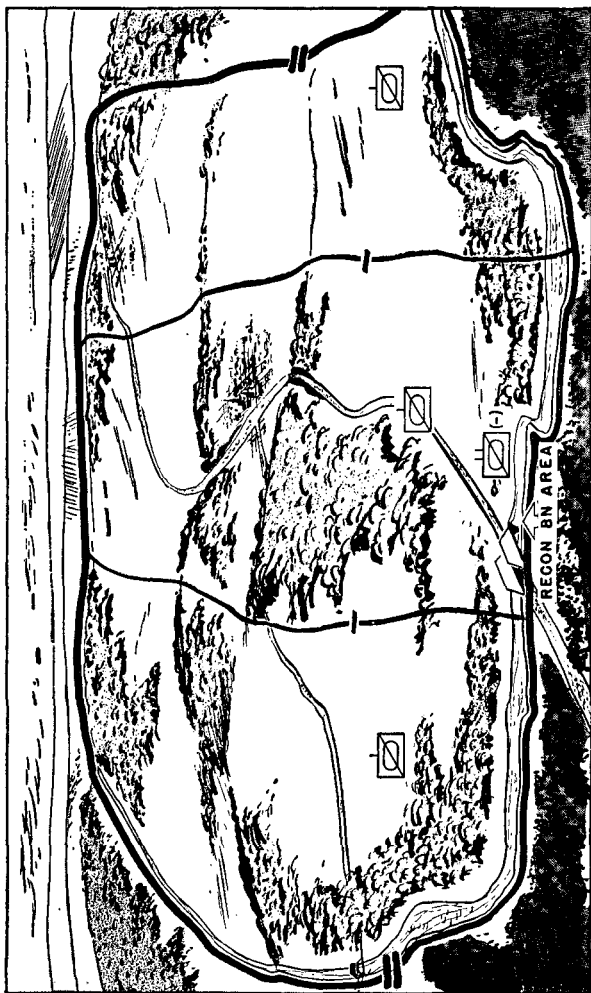
and predicted road conditions, terrain features within the zone, and anticipated enemy action. The battalion commander should in turn assign boundaries for each company he intends to employ. These boundaries, as well as the boundaries for the battalion zone, should be easily recognized features, such as roads, railroads, rivers, or ridge lines.

*c.* When intelligence indicates that the enemy is moving on one or more routes, or when terrain features canalize his advance, the enemy routes of advance are designated for reconnaissance. Routes of advance may also be assigned when specific information of any given route or series of routes is required. Route reconnaissance may include the reconnaissance of a road, valley, or other route of advance about which the higher commander desires information prior to making a decision.

*d.* When accurate information indicates that the enemy is located in an area that has definite boundaries, that area or locality is assigned for reconnaissance (fig. 34). This method of control may be used in the reconnaissance of an area in which the enemy is making an airborne landing. It may also be used when a commander desires information of a town, ridge line, or other area that may be a critical terrain feature in the zone of operations.

## **89. CONDUCT OF RECONNAISSANCE**

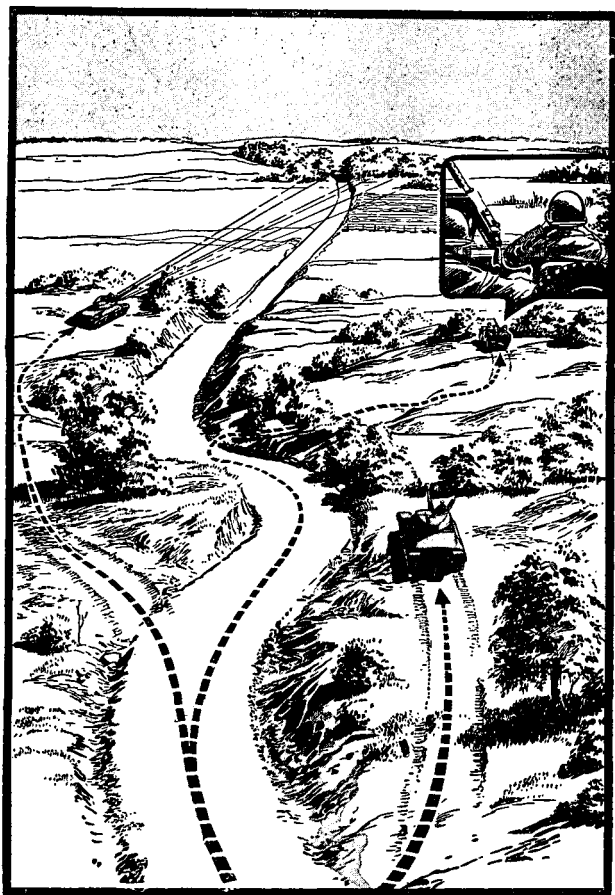
*a.* In general, reconnaissance missions should be executed boldly and aggressively, making full



*Figure 34. Use of zones in conducting area reconnaissance.*

use of the battalion's mobility and fire power. The average reconnaissance mission assigned to the battalion cannot be accomplished by secrecy; on the contrary, it must be conducted as a fighting, combat mission. Mounted reconnaissance may often be expedited by use of reconnaissance by fire: leading elements of the battalion firing into likely or suspected enemy positions in an attempt to cause the enemy to disclose his presence by movement or return fire (fig. 35). Except for dismounted reconnaissance at times, and for patrolling, the battalion should not use stealthy, deceptive movement unless ordered to do so by higher headquarters. The battalion commander must coordinate the efforts of the companies so there will be no duplication of effort, conflicting reconnaissance, or possibility of combat between friendly units (the latter is particularly likely at night).

b. The number of reconnaissance companies employed for any given mission depends upon the particular situation and is influenced by the mission, terrain, capabilities of the enemy, and cooperation of friendly ground and air units. Sufficient strength is always used to insure complete coverage of the zone or routes assigned. If possible, one company should be held in reserve; however, this is impracticable in many reconnaissance missions, and the battalion commander should show no hesitancy in employing all the companies when the width of the assigned frontage makes this necessary. The companies executing the mission advance abreast in their zones or on their



*Figure 35. Reconnaissance by fire; fire is placed on suspected enemy positions.*

routes. No more than three routes of advance should be given each reconnaissance company; assignment of more than three per company results in decreased efficiency and slows the advance of the entire battalion.

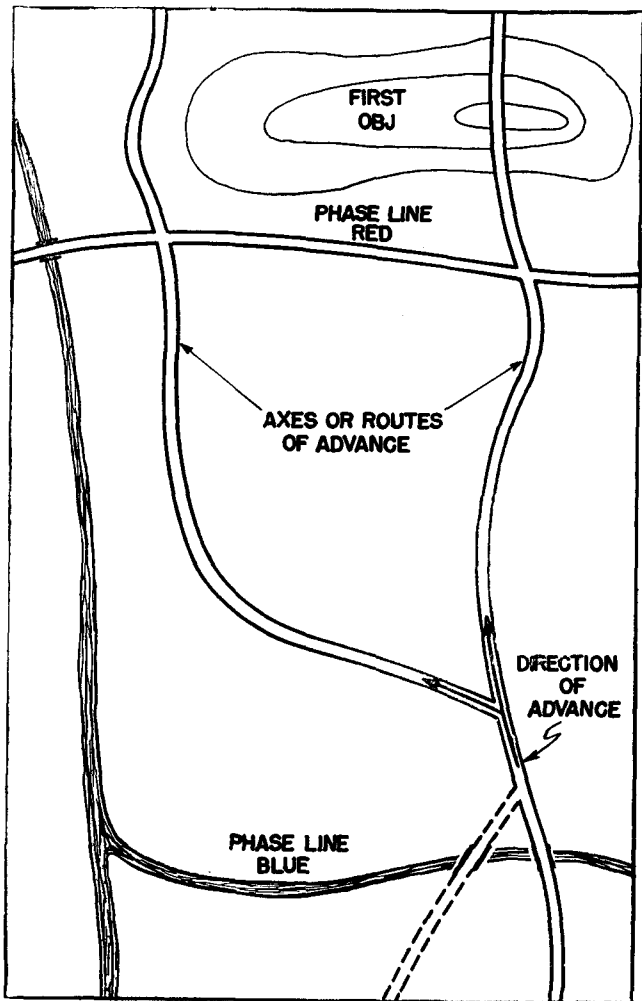
c. The forward echelon, the reserve, and the battalion combat trains should advance on the best road available in the center of the battalion zone. The reserve may advance behind the leading elements on the more threatened flank.

## **90. CONTROL IN RECONNAISSANCE**

a. To control the rate of advance (figs. 36 and 37), the battalion commander may designate phase lines, control points, a series of objectives, or a distance to be covered in a given period of time. Normally, companies report, but do not stop, on reaching or crossing phase lines or control points; however, the battalion commander may direct other action by the company, such as—

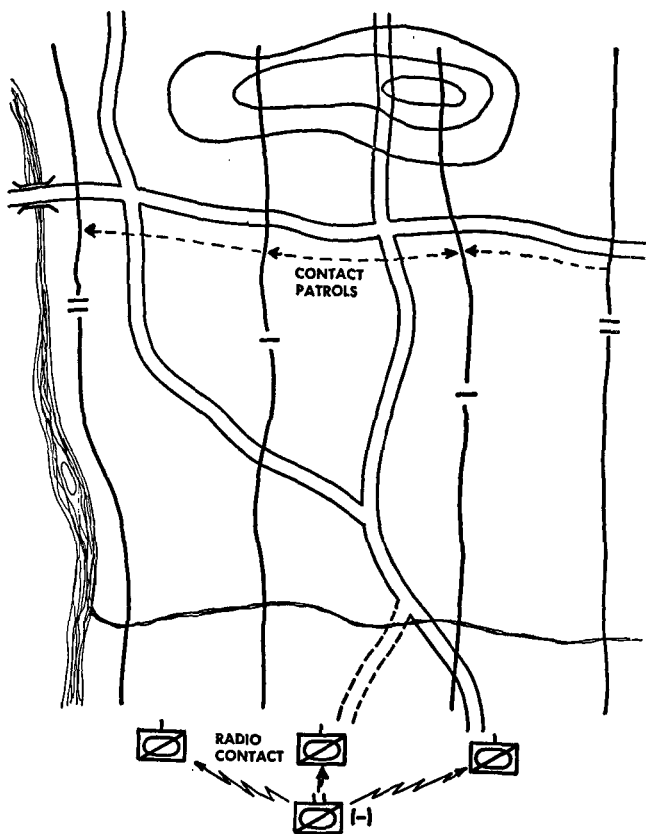
- (1) Report on reaching and clearing.
- (2) Halt until ordered forward.
- (3) Clear at a specified time.

b. Other means of control are radio, messengers, lateral patrols between companies, and staff officers. Inasmuch as the battalion is normally employed over a broad frontage when on a reconnaissance mission, the battalion commander should place himself in a central location where he can always contact all elements. However, this does not preclude his movement to any portion of the zone to supervise a critical action.



*Figure 36. Methods of control during a reconnaissance mission: routes or axes, phase lines, and objectives.*





*Figure 37. Methods of control during a reconnaissance mission: boundaries (zones), contact patrols and radio.*

a. The reconnaissance mission is assigned to the battalion as a unit. Instructions may be issued to the battalion commander either orally or in an operation order. Priorities should be given when more than one mission is assigned; the battalion commander then allots tasks to the companies and coordinates operations.

b. Missions must be specific; if they are not, commanders should request clarification. Instructions to all echelons must be complete and must include exactly what information is to be obtained, where the information is to be sought, and when the mission is to be executed. Essential details may include—

- (1) Pertinent information of the enemy and friendly troops.
- (2) Plans of the higher commander.
- (3) Specific information desired.
- (4) Zone, area, route, or axis of advance.
- (5) When, where, and how information is to be reported to the higher commander.
- (6) Time of departure.
- (7) Phase lines and objectives and, when desirable, the times they are to be reached.
- (8) Action when the mission is completed.

c. Instructions of the battalion commander may be issued orally, in an overlay-type operation order, or by a combination of both. Whenever possible, company commanders should be assembled for initial orders to insure that measures for

mutual support and cooperation are understood. Objectives and routes are assigned by the battalion commander. After active reconnaissance has started, orders are disseminated by radio, messenger, the battalion staff, or the commander in person.

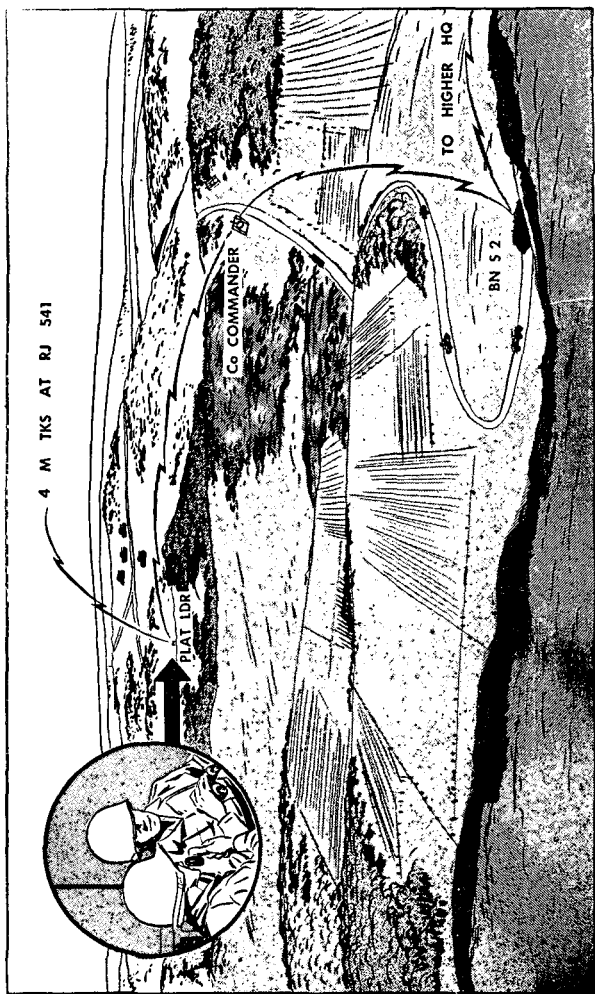
## **92. TRANSMITTING INFORMATION**

*a.* Rapid forwarding of information is essential to the success of any reconnaissance mission. All members of the battalion must be indoctrinated with the need for rapid transmission of all information gathered. Forwarding of information is facilitated by developing a battalion standing operating procedure; this procedure establishes priorities which apply in the absence of specific instructions. The use of a standing operating procedure simplifies orders and facilitates transmission of essential information. Information of first contact with the enemy, or terrain information which is vital to the higher commander's plan of action, is transmitted at once (fig. 38). The information is also transmitted to adjacent units.

*b.* Information should be relayed without delay from platoon to company to battalion (fig. 39). When information is received at battalion headquarters, it is evaluated and interpreted if it pertains to the situation of the battalion. All information of military value should be sent to higher headquarters whether or not it can be evaluated or interpreted at battalion, for such information may be of extreme importance to the higher headquarters when considered in conjunction with



Figure 38. Initial contact with the enemy is reported immediately; the contacting element should have prior instructions on whether to maintain contact or proceed on its mission.



*Figure 39. Information must be rapidly relayed from the observer to higher headquarters.*

information received from other sources. Only by prompt forwarding of the information gathered can the battalion successfully fulfill a reconnaissance mission. The contacting unit should have prior instructions as to whether to maintain contact with the enemy or proceed on its mission.

### **93. RECONNAISSANCE BY ARMY AIRCRAFT**

a. The organic Army aircraft within the reconnaissance battalion is an excellent means of extending and supplementing the battalion's ground reconnaissance. All unit commanders should exercise discretion in the use of Army aircraft in order to insure maximum efficiency and minimum loss of aircraft. When necessary, the battalion commander should request the support or attachment of additional aircraft.

b. When the battalion is executing a reconnaissance mission, Army aircraft are normally employed over the advancing reconnaissance companies. The aircraft are used to extend observation by making aerial reconnaissance; they are also capable of locating and reporting enemy strong points, road blocks, blown bridges, or approaching enemy columns. If the battalion is extended over a wide frontage, the aircraft may also be used for messenger service, emergency supply and evacuation, and command transportation. The battalion commander may find it advantageous to direct the maneuver of his elements from Army aircraft.

c. Tactical control of organic and attached Army aircraft remains with the battalion com-

mander, and operational missions are given to the pilots. Information gathered by the aircraft is transmitted directly to the battalion commander.

#### **94. RECONNAISSANCE AT NIGHT**

Reconnaissance operations are slow and less effective at night. Night reconnaissance is ordinarily limited to dismounted patrolling, observation of routes, and the use of listening posts. Only against very light enemy resistance and with favorable terrain and routes of advance can vehicular reconnaissance be used without being preceded by dismounted patrols. Engines and tracked vehicle movements are audible for considerable distances, and observation is difficult, making vehicles highly susceptible to ambush. Cross-country movement is very difficult; and except for short cross-country movements, night vehicular reconnaissance should be confined to the road net.

### **Section III. COUNTERRECONNAISSANCE**

#### **95. GENERAL**

a. Counterreconnaissance by the reconnaissance battalion includes all measures taken by the battalion to screen the division or portions thereof from observation by the enemy. The battalion attempts to keep enemy ground reconnaissance from observing the division by defeating or block-

ing these hostile ground forces. In the execution of counterreconnaissance, the battalion operates either offensively or defensively, using whichever form of combat can best accomplish the mission.

*b.* Counterreconnaissance may be used to screen a concentration, a movement, or an operation where secrecy is of importance. This type of mission may be assigned to the battalion by a higher headquarters when the higher headquarters is advancing, withdrawing, or at a halt. The reconnaissance battalion accomplishes a counterreconnaissance mission by engaging the enemy in such a manner as to prevent or limit his observation or investigation of a certain area or beyond a certain line.

## **96. TYPES OF COUNTERRECONNAISSANCE SCREENS**

*a.* The battalion establishes either a mobile or a stationary screen in the execution of the counterreconnaissance mission. The mobile screen is used in situations where the division must be screened over a wide front or on a deep flank. The battalion moves in column or by a system of leap-frogging, adjusting on the division. The stationary screen is used for screening the dispositions or concentration of the division or preventing the enemy from reconnoitering an area.

*b.* The mobile screen is most effectively executed by rapid maneuver of elements of the battalion to block and defeat enemy reconnaissance units. The stationary screen is most effective when the screen can be established within or behind an obstacle which must be crossed by hostile forces.



## **97. ZONES AND SECTORS FOR COUNTERRECONNAISSANCE**

When the higher commander assigns a counter-reconnaissance mission to the reconnaissance battalion, he may designate a zone or sector to be covered by the battalion. If the mission is to screen the advance of the division, a zone of action is usually prescribed. If the mission calls for the establishment of a stationary screen, the instructions designate a sector and a general line beyond which no enemy ground reconnaissance will be allowed to penetrate. The width of the sectors or zones assigned to the reconnaissance companies depends on the terrain, the existing road net, the hostile threat, and the degree of neutralization of enemy reconnaissance desired. The battalion is so disposed as to give the higher commander time and space to maneuver troops to meet enemy threats.

## **98. CONTROL IN COUNTERRECONNAISSANCE**

In the execution of a counterreconnaissance mission, the battalion may operate under division or combat command control. The battalion commander controls the movement of the companies by assigning sectors and zones, designating phase lines, the use of radio, the use of staff officers, and personal contact. Army aircraft may be used by the battalion commander for control and also as command transportation.

a. In providing a mobile screen, the battalion commander first assigns proportionate shares of the mission to the companies. Companies then screen their sectors by mobile patrolling rather than by occupying stationary positions. Each company is most efficiently employed when it is responsible for not more than three avenues of approach; however, the width of the battalion sector may often make it necessary for companies to cover more than three such avenues. The battalion commander should attempt to hold a reserve; but if all companies must be employed to screen sectors, he should alert the least threatened company for employment as a reserve as soon as an enemy threat can be foreseen.

b. In providing a stationary screen, the battalion deploys in front of the general line designated by the higher commander, so that in the event of a strong enemy attack, the battalion will not be driven off the line and jeopardize its mission before the reserve can be committed or the higher commander can maneuver to meet the enemy attack. This type of screen is normally used in a static situation when the battalion zone is not so large as to preclude formation of a reserve. It may be effectively used to screen the assembly of the division or a combat command. If possible, the companies are assigned sectors having no more than three avenues of approach or terrain features. The battalion screen consists of stationary company positions which dominate the road net, occupy commanding ground, and utilize all natural

obstacles. Intervals between company positions are observed and patrolled by both ground and air elements. If the battalion commander is unable to retain an uncommitted element as a reserve, he may influence the action at a critical point by maneuvering troops from a less threatened sector.

c. Army aircraft should be used during counterreconnaissance missions in the same manner as prescribed in paragraph 93.

## **CHAPTER 5**

### **OFFENSIVE OPERATIONS**

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#### **Section 1. GENERAL**

##### **100. GENERAL**

The reconnaissance battalion is capable of offensive action as a light armored force; however, it most frequently engages in offensive action to facilitate the accomplishment of its normal security and reconnaissance missions and thereby to aid in the destruction of a hostile armed force. Attacks made by the battalion are usually individual company actions, due to the normal dispersion of the battalion while engaging in security operations. See FM 17-22 for a discussion of a company attack. However, there are occasions when it is necessary to launch a battalion-size coordinated attack in order to further the over-all security or reconnaissance mission.

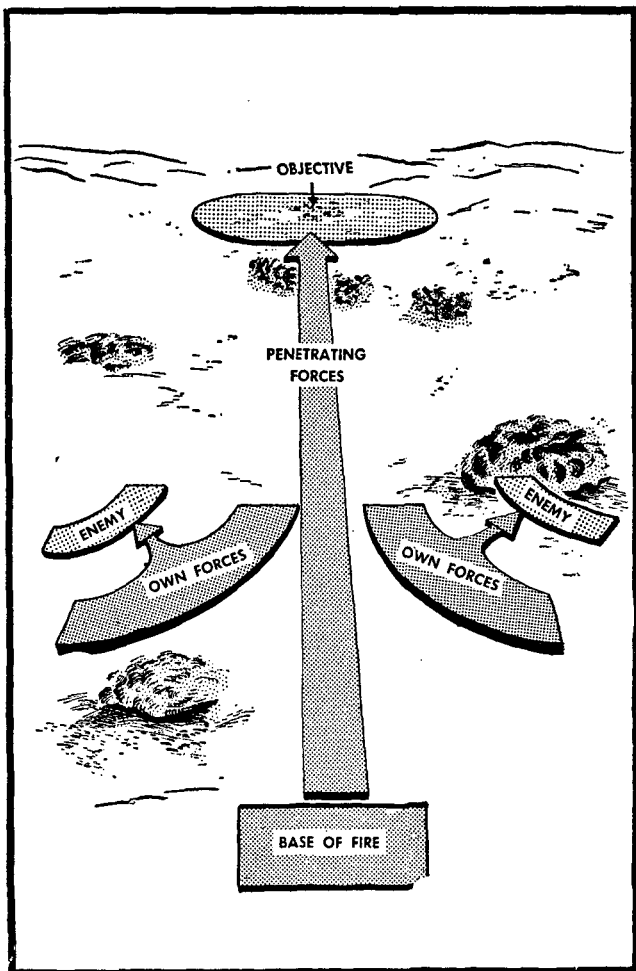
##### **101. FORMS OF OFFENSIVE ACTION**

There are two general forms of offensive action: envelopment and penetration. Exploitation is a phase of offensive action which may be a continuation of either of these forms. In the initial action against an organized position, the attacking force may seek either to penetrate the position or to

envelop it. When the enemy defenses have been disrupted and the objective has been seized, the attack develops into exploitation.

a. The fundamental difference between envelopment and penetration is that an enveloping force passes around the flank of the enemy and strikes his flank or rear, while a penetrating force strikes the enemy frontally and forces a gap in the position, through which friendly forces operate. Whenever possible, elements of the attacking force avoid frontal attacks and seek to envelop. The attack may vary as it progresses. It may begin as a penetration; then, as the enemy lines are pierced, armor may immediately seek to envelop the flanks created.

b. The mission of the assaulting force in a penetration is to break through the enemy dispositions to a depth which will prevent the enemy from maintaining the continuity of his battle position, and to provide the opportunity for exploitation (fig. 40). Armor will frequently be required to penetrate organized enemy positions. Conditions which demand a penetration are enemy flanks which are unassailable, or lack of time to make an enveloping maneuver. The penetration is favored by overextension of the enemy, favorable terrain and good observation, and the fact that such an attack can usually be organized more quickly than can an envelopment. A great superiority in strength and supporting fires is required at the point of penetration. While the main attack is being launched against the most advantageous portion of the enemy position, other attacks exert



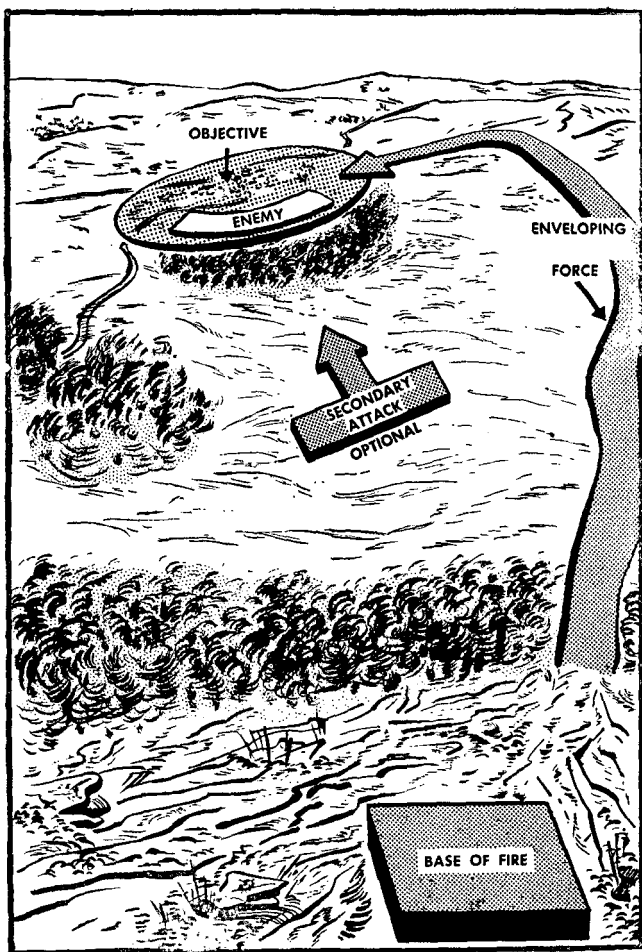
*Figure 40. Scheme of maneuver for a penetration.*

pressure on other portions of the enemy defense to hold them in place. The main attack consists of three impulses:

- (1) Breaking through the hostile defenses.
- (2) Widening the gap by enveloping one or both of the enemy's interior flanks.
- (3) Seizure of the objective.

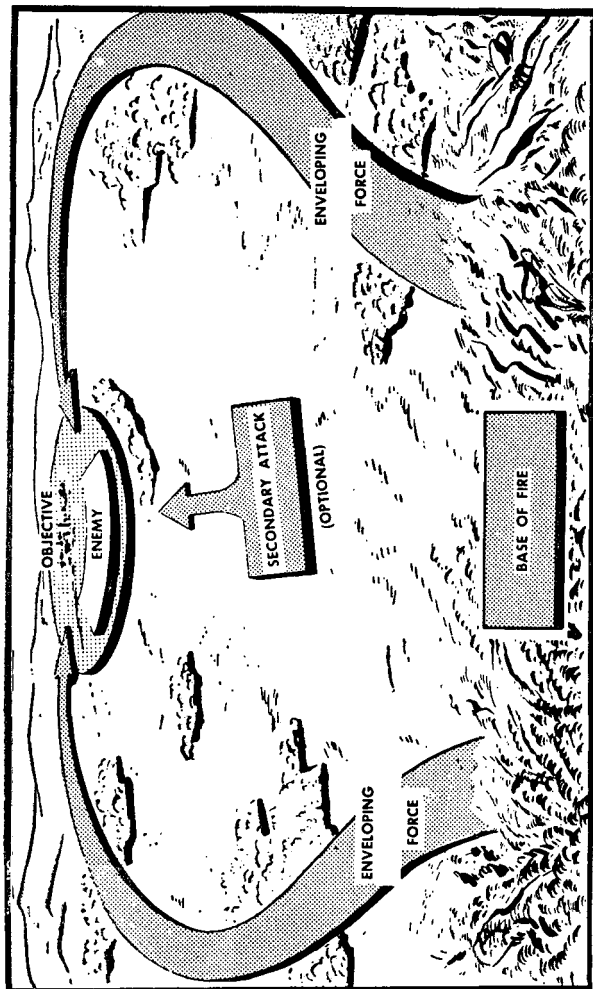
c. The envelopment is employed when a weak or exposed hostile flank is discovered and when there is time to execute the maneuver. It has the advantages of capitalizing on surprise, exploiting enemy weaknesses, forcing the fighting on ground not chosen by the enemy, forcing the enemy to fight in two or more directions to meet the converging efforts of the attack, minimizing the attacker's casualties, and accomplishing decisive results. An envelopment has the disadvantages of requiring more coordination and therefore more time, and of creating a gap between the enveloping force and the base of fire. Some form of envelopment is usually best adapted to the offensive actions of the reconnaissance battalion. The three types of envelopment are—

- (1) Single envelopment (fig. 41). This is an envelopment of one flank.
- (2) Double envelopment (fig. 42). This is an envelopment of both flanks. It requires considerable superiority of numbers and fire power, and a great deal of coordination. It should be used only when the enemy force is incapable of executing a maneuver which would defeat the enveloping force in detail.



*Figure 41. Scheme of maneuver for a single envelopment.*





*Figure 42. Scheme of maneuver for a double envelopment.*

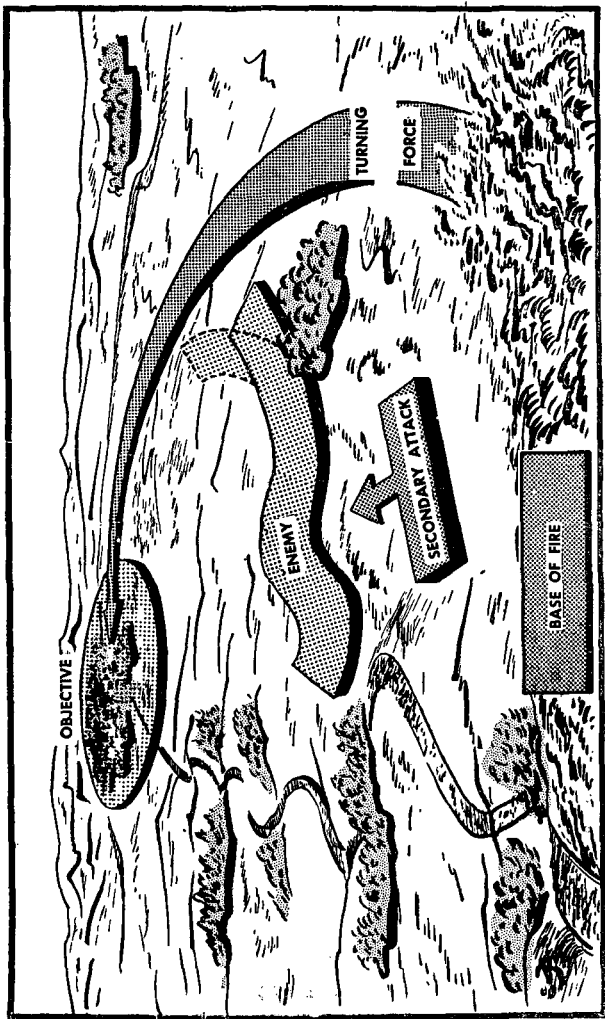


Figure 43. Scheme of maneuver for a turning movement.

- (3) Turning movement (fig. 43). A turning movement is a wide enveloping maneuver which passes the main enemy position to strike at some vital point deep in the hostile rear. This movement is particularly adapted to armored action. Turning movements are frequently used by armor in exploitation.

d. Envelopments may be used to—

- (1) Seize the dominating terrain in rear of the objective.
- (2) Cut off the retreat of the defending forces.
- (3) Prevent enemy reinforcements from reaching the objective.
- (4) Overrun and destroy enemy supporting troops, artillery, and reserves.

## 102. PRINCIPLES OF EMPLOYMENT IN ATTACK

When a coordinated attack is launched by the battalion as a whole, the principle of concentration of effort is applied and the attack is made on a relatively narrow front. In an attack of this type the principles governing the employment of the reconnaissance battalion are the same as those governing the employment of a tank battalion of the armored division (FM 17-33). These principles are—

- a. Surprise.
- b. Fire and maneuver.
- c. Concentration of effort.
- d. Retention of the initiative.
- e. Security.

- f. Cooperation.
- g. Coordination.

### 103. DEFINITIONS, ATTACK TERMS

The following are terms commonly used in connection with offensive operations.

a. *Assembly area.* A position in a forward area in which the elements of a command are assembled preparatory to further action or for resupply, maintenance, or reorganization.

b. *Attack position.* The last covered or concealed position occupied by an attacking force before moving to the line of departure. The position is occupied a minimum length of time for final preparation and coordination for the attack.

c. *Line of departure.* A line designated to coordinate the departure of attack elements; normally an easily recognizable feature on the ground, such as a road, a ridge line, or the edge of a woods. The line is ordinarily located on or behind the last available terrain mask which can be reached without exposure to enemy observation and small-arms fire, but on occasion may be the line held by friendly elements. If possible, it should be perpendicular to the direction of attack. However, the most important point is that it be so located that the attacking force can get its attack fully launched before enemy interference is encountered.

d. *Objective.* A locality or geographical feature to be captured or reached in the course of an attack or during a movement.

e. *Axis of advance.* A line of advance, often a

road or group of roads or a designated series of locations, extending in the direction of the enemy.

*f. Economy of force.* Use of a minimum of troops and supplies on less important objectives so that the main strength can be reserved for a major effort.

*g. Axis of evacuation.* A route by which matériel and personnel may be sent to the rear.

## 104. OBJECTIVES

*a.* To facilitate the coordination and control of a battalion attack, the battalion commander selects or is given an objective or a series of objectives. An objective should fulfill the following requirements:

- (1) The timely capture of the objective must be within the capabilities of the battalion.
- (2) The threat of its capture should compel the enemy to evacuate his position or risk destruction therein.
- (3) The objective must be easily identifiable by the troops responsible for its capture.
- (4) The capture of the objective should facilitate future operations.
- (5) It should produce a convergence of effort.

*b.* An objective must be selected with the view of furthering the battalion's reconnaissance or security mission. Normally a critical terrain feature or a road center is best suited for the battalion objective. After the objective has been selected, the battalion commander must direct all efforts toward its capture.

## **Section II. PREPARATION FOR ATTACK**

### **105. ASSEMBLY AREA, GENERAL**

a. If time permits the use of an assembly area prior to the attack, a daylight reconnaissance should be made of the area and the routes leading to it. The battalion normally moves into the assembly area during darkness to preserve secrecy.

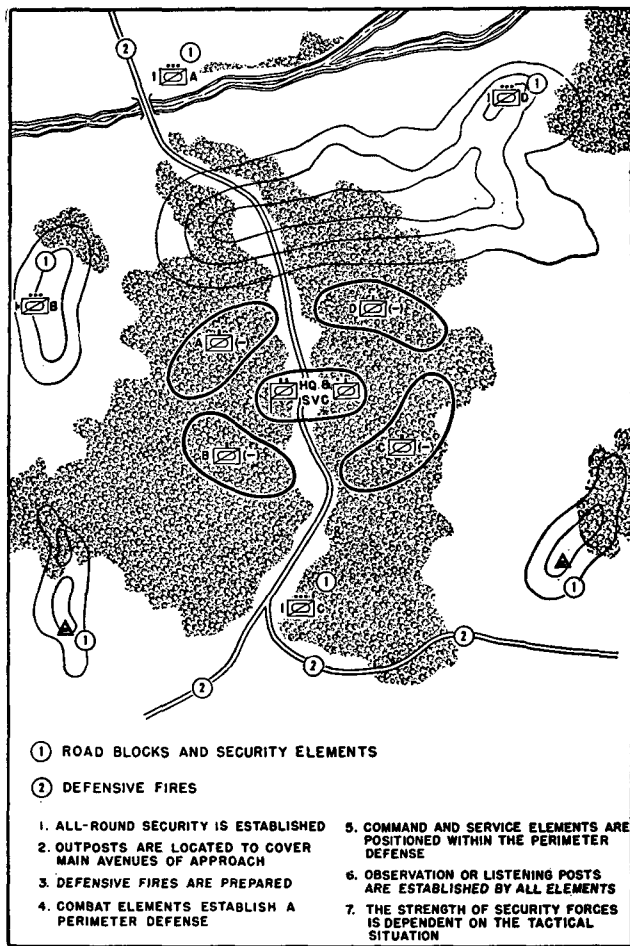
b. Local security in the assembly area consists primarily of concealment and camouflage, radio or listening silence, and sufficient outposts to prevent surprise (fig. 44). Defensive fires are always planned.

c. In the assembly area, the battalion refuels and performs maintenance, while the commanders and staff make a reconnaissance, if possible contacting the troops currently engaged with the enemy, and select the attack position. Routes to the attack position should be reconnoitered for both daylight and night movement, and arrangements made for the move to this position. Routes for day movement should provide maximum concealment from enemy observation; routes for night movement should be over the best improved roads available.

d. The reconnaissance battalion may be called upon to assist the armored division in a move to assembly areas by providing guides and road markers.

### **106. STEPS IN PLANNING AN ATTACK**

Whenever the battalion is to be committed in a coordinated attack, the battalion commander



*Figure 44. Security of the reconnaissance battalion assembly area.*

should plan the attack by using a series of logical actions. These actions should include—

- a.* Issuing a warning order to subordinate units.
- b.* Initiating the necessary reconnaissance, both by himself and by his subordinate commanders.
- c.* Initiating liaison and, where necessary, control measures for an attack through friendly troops.
- d.* Starting a continuous estimate of the situation and arriving at a decision.
- e.* Planning the details of the attack.
- f.* Issuing the attack order.
- g.* Supervising the attack.

#### **107. RECONNAISSANCE PRIOR TO ATTACK**

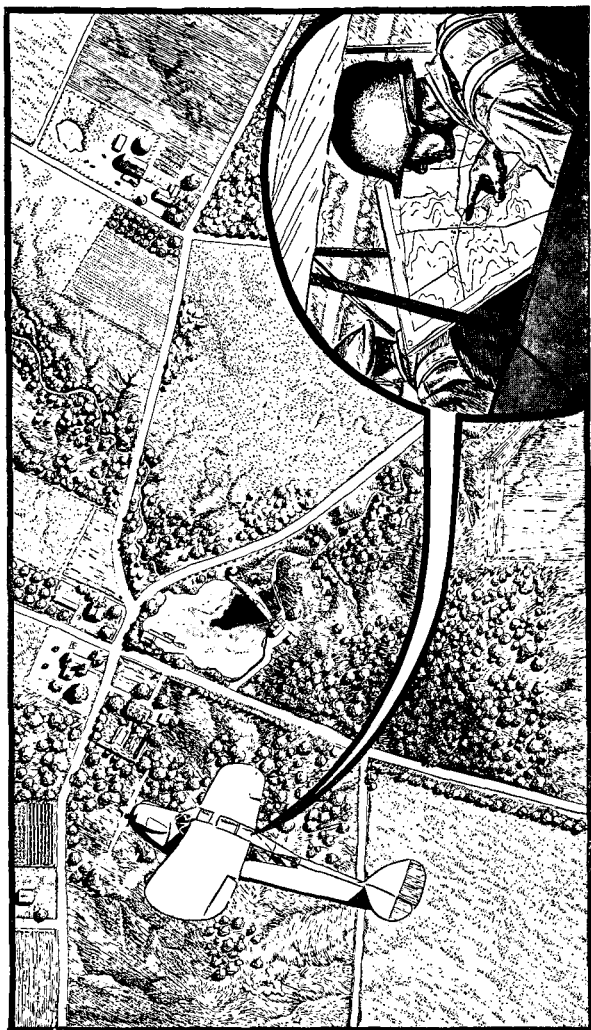
*a.* The battalion commander should make every effort to obtain all information possible which will facilitate his attack. A thorough map and air photo reconnaissance is made of the projected area of operations; this reconnaissance will bring out the desirable and undesirable features of the terrain and the available road net. To facilitate rapid maneuver of the battalion, the road net should be given considerable study.

*b.* In addition to his map reconnaissance, the battalion commander should make every effort to conduct a personal reconnaissance. Further, a personal reconnaissance should be made by as many subordinate commanders as possible, within the time available (fig. 45). Because of enemy actions, lack of time, and possible disclosure of intentions





*Figure 45. The battalion commander and his subordinate commanders on a personal reconnaissance.*



*Figure 46. Whenever time permits, the battalion commander should use an Army aircraft to make his personal reconnaissance.*

to the enemy, a personal reconnaissance is not always possible. The commander must then obtain information from higher headquarters, units in contact with the enemy, and reports of Army aircraft pilots. Whenever possible, the battalion commander and his subordinate commanders should utilize Army aircraft for conducting their personal reconnaissances (fig. 46).

## **108. COORDINATION FOR ATTACK**

a. The reconnaissance battalion is a team; as such it can expect a successful attack only by the smooth functioning of its component parts. In order to obtain complete coordination of action it is necessary that early and detailed plans be prepared for the attack. Conferences for subordinate commanders and the battalion staff should be held to insure that all understand both their own tasks and the operation of the battalion as a whole. Establishment of liaison and communication with higher headquarters will measurably assist in the over-all coordination for the attack.

b. Coordination becomes increasingly important in the event the reconnaissance battalion is reinforced by other elements of the division. An attached unit should establish liaison with battalion headquarters; this liaison may be accomplished by an officer, a noncommissioned officer, or a messenger. The battalion communication officer must make certain that any attached unit has the correct channels on its radios and that it has the current SOI. The battalion commander and staff must be thoroughly familiar with the status of an

attached unit and must also brief and orient its troops, giving them all available information.

## **109. COMMUNICATION DURING ATTACK**

*a.* Radio is the normal means of communication during an attack; it is the means by which the battalion commander issues orders and controls and maneuvers the companies. Normally the F-M radios are used for the battalion command net. Radio communication should be supplemented by messengers and other means whenever necessary.

*b.* Visual signals are often very valuable as signaling devices during the attack. The code meaning of the various signals must be thoroughly understood by the troops using them and should be easily committed to memory.

## **110. SUPPORTING UNITS IN ATTACK**

*a.* The battalion is normally used as an economy force and as such will rarely have other elements of the division attached. However, on occasion the battalion may receive attachments for a specific mission or attack. These attachments may include tanks, armored infantry, and armored engineers.

*b.* The battalion may expect artillery support and normally the attachment of an artillery liaison officer. This support may include both the light and medium artillery of the division and the heavy artillery of higher headquarters. Supporting artillery fires must be closely coordinated with the battalion attack plan; this is effected by con-

ferences between the battalion commander and the artillery battalion commander or the artillery liaison officer (fig. 48). This coordination should cover—

- (1) Fires on located and suspected antitank weapons, observation posts, indirect fire weapons, and targets of opportunity.
- (2) Detailed plans for lifting or shifting of fires as the attack progresses. Supporting fires should be maintained until the last possible moment in order to keep enemy personnel pinned down until the assault elements are upon them.
- (3) Fires to protect reorganization on the objective, to include prearranged fires to the front and flanks as protective measure against counterattacks.
- (4) Coordination of the mortar fires of the reconnaissance companies with the artillery fires so as to obtain complete coverage of the area both during the attack and during reorganization on the objective.
- (5) Means for observing fire. When placed in direct support the artillery usually furnishes one forward observer per reconnaissance company; however, all reconnaissance commanders should be capable of requesting and adjusting artillery fires.

c. Tactical air support is normally reserved for the main striking force of the division; however,

the battalion commander should not hesitate to request this support when he feels it to be desirable.

*d.* Observers in Army aircraft can materially assist the battalion commander in maneuvering and controlling the companies during the attack.

*e.* If an armored infantry unit is attached to the battalion, it is usually kept intact as a tactical unit but may be reattached by smaller units to the reconnaissance companies. The reattachment of armored infantry platoons is primarily determined by the mission and the enemy situation. The infantry may also be held as a unit in reserve, or employed in normal infantry roles. If both tank and armored infantry units are attached, they are normally formed into a tank-infantry team.

*f.* If a medium tank unit is attached, it is normally held in reserve as a unit and used by the battalion commander to strike a critical blow during the action. However, when the tanks' heavier armor protection can vitally assist the action of two or more companies, a portion of the tanks may be attached to these companies.

*g.* Armored engineers may be attached to facilitate demolition, crossing and clearing obstacles, and road maintenance tasks. They should be so employed as to best assist the forward movement, and may be held under battalion control or placed with one or more of the reconnaissance companies as the situation dictates. Engineer reconnaissance teams are frequently attached to the battalion for the purpose of gathering technical information on bridges, roads, and obstacles.

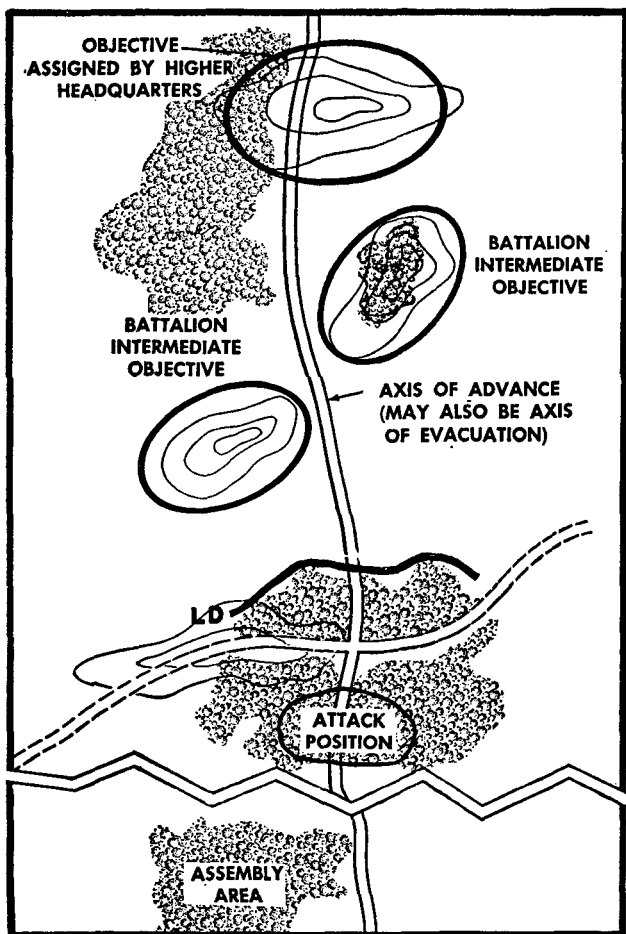
## 111. PLAN OF ATTACK

*a.* Upon receipt of his mission from higher headquarters, the battalion commander must initiate reconnaissance and liaison to obtain the necessary information to formulate his estimate of the situation and make his decision. All planning and the final order are based on this decision. Planning is done deliberately, and all foreseeable actions are covered.

*b.* The formation of the battalion depends on the mission, the terrain, and the enemy situation. In an attack to secure a terrain feature the battalion is normally formed into one or more maneuvering forces and a base of fire, with a reserve if possible. The relative size of these forces depends entirely on the troops available and the situation at the time of the attack.

*c.* The battalion commander may select intermediate objectives to facilitate control and coordination of the attack (fig. 47). The distance between these intermediate objectives is determined by the terrain and the enemy situation. Intermediate objectives used for an attack normally are critical terrain features, the capture of which is essential to the seizure of the final objective.

*d.* In an attack to secure a terrain feature or a series of terrain features, the battalion commander should designate objectives and a direction of attack for the companies being employed. Boundaries are seldom designated between companies unless the terrain is such that a boundary



*Figure 47. The battalion commander may select intermediate objectives to facilitate control during the attack.*



between two leading elements of the battalion is needed for control.

*e.* A line of departure should be designated by the battalion commander to coordinate the departure of the various companies. If the battalion is attacking through a friendly force, the line of departure may be the front line held by this force, provided sufficient time is available for a thorough reconnaissance of the friendly positions by all subordinate commanders. However, even when the friendly front line is used as the line of departure, it is desirable to designate specific terrain features to indicate the line.

*f.* The time of attack is normally designated by the battalion commander and may be a specific time or may be on order. If the time of attack is dependent on the progress of a friendly force, the battalion commander should establish liaison with this force.

*g.* When the battalion is operating as part of a larger force, the locations of the assembly area and the attack position are normally designated by the higher commander. The battalion commander further subdivides these positions into company areas.

*h.* During the attack, the battalion command post (headquarters forward echelon) normally follows the leading elements by bounds. However, only by placing himself and his staff well forward can the battalion commander effectively command and supervise the companies. The battalion trains are kept clear of the action until the situation is such that they can be brought forward.

i. The reserve is one of the most important means by which the battalion commander can influence the action. When the battalion dispositions are such that a reserve may be formed, it should be held well forward, so that a minimum of time will be needed for committing it.

## **112. THE ATTACK ORDER**

a. The battalion commander normally issues an oral attack order to his assembled subordinate commanders and staff officers. This order must be complete, covering all phases of the attack, and may include the issuance of maps and overlays as necessary. It should follow the five-paragraph form of a written operation order (app. IV).

b. Oral orders are easily misunderstood and should be issued with the greatest of care. Specific points that help to avoid misunderstanding include the following:

- (1) Have maps, overlays, and other material ready for distribution.
- (2) Orient subordinates on the map and on the ground.
- (3) Talk from notes and have a staff officer or clerk record the order.
- (4) Speak slowly and distinctly, and caution subordinates to take notes.
- (5) Use plain, simple language.
- (6) Synchronize watches.
- (7) Ask for and answer questions.

## **113. OCCUPATION OF ATTACK POSITION**

a. When not assigned by a higher commander,

the attack position is selected by the battalion commander or a member of his staff and is subdivided into company positions. It is the last covered position the battalion will occupy prior to actual contact with the enemy.

b. If possible the move to the attack position is made under cover of darkness. This means that sufficient markers must be posted to insure a smooth, uninterrupted flow of traffic. Movement to the attack position should be so timed that the battalion will be there only long enough to make last-minute checks and establish final contacts. Prior to the attack, listening silence is normally ordered; radio receivers will be on, but no transmissions will be made.

#### **114. BATTLE RECONNAISSANCE IN THE ATTACK**

a. Battle reconnaissance (par. 84) is a constant search for information by all members of the battalion during actual combat. It is not confined to commanders but is performed by every member of the command engaged with the enemy. It starts with the first enemy contact and does not terminate until contact is broken. All personnel must be alert for information on—

- (1) Location of antitank guns, mines, and obstacles.
- (2) Changes in location of friendly troops.
- (3) Progress of the attack.
- (4) Most suitable avenues of approach to the objectives.
- (5) Changes in enemy dispositions.
- (6) Arrival of enemy reinforcements.

- (7) Enemy air and tank attacks.
- (8) Plans for further offensive action.
- (9) Probable direction of hostile counterattacks.

b. An observer in an Army aircraft can give the battalion commander much valuable information on the progress of the attack, enemy reaction, obstacles, enemy armor, and indications of enemy mechanized counterattacks. During the reorganization the air observers must be especially alert for hostile counterattacks. The battalion commander or a member of the battalion staff may act as the observer in the aircraft during the attack and reorganization.

### **Section III. CONDUCT OF THE ATTACK**

#### **115. DISTRIBUTION OF FORCES IN THE ATTACK**

a. During the attack, the reconnaissance battalion normally employs a maneuvering force, a base of fire, and a reserve (fig. 48). The maneuvering force, also called assault force, maneuvers to strike the enemy position on the flank or rear and seeks to envelop rather than to penetrate the position. This force makes the main effort of the battalion; it is usually employed in depth and closes rapidly with the enemy. The battalion commander should make every effort to employ as many troops in the maneuvering force as the ground will accommodate. Normally the battalion employs only one maneuvering force at any one time. This force may be composed of all the ele-

ments of one or more reconnaissance companies, or in unfavorable terrain it may be composed of only the tank sections and rifle squads of one or more companies. If necessary, personnel of the various scout sections may be dismounted to give additional rifle strength to the maneuvering force.

*b.* The direct-support artillery, if available, forms the major portion of the base of fire. See paragraph 110 for coordination of artillery fires. The artillery fires may be reinforced by elements from the battalion, which support the attack by direct fire. Tanks are placed in the base of fire only if the terrain does not permit their commitment with the maneuvering force or if the supporting artillery fires are inadequate. When direct-support artillery is not available, elements of the battalion must be used to form the base of fire. Under such circumstances, the direct fires of the base of fire may be augmented by placing all or the majority of the 81-mm mortars in this force. Elements of the battalion in the base of fire may also be considered as a battalion reserve.

*c.* Initially, in the battalion attack, the commander should attempt to keep part of his force uncommitted to be employed as a reserve. This uncommitted force may follow the maneuvering force, if terrain permits, or it may be a part of the base of fire.

## **116. SUPERVISION OF THE ATTACK**

*a.* In all offensive operations of the battalion, the battalion commander must imbue in his troops the aggressive spirit that is essential for a quick,

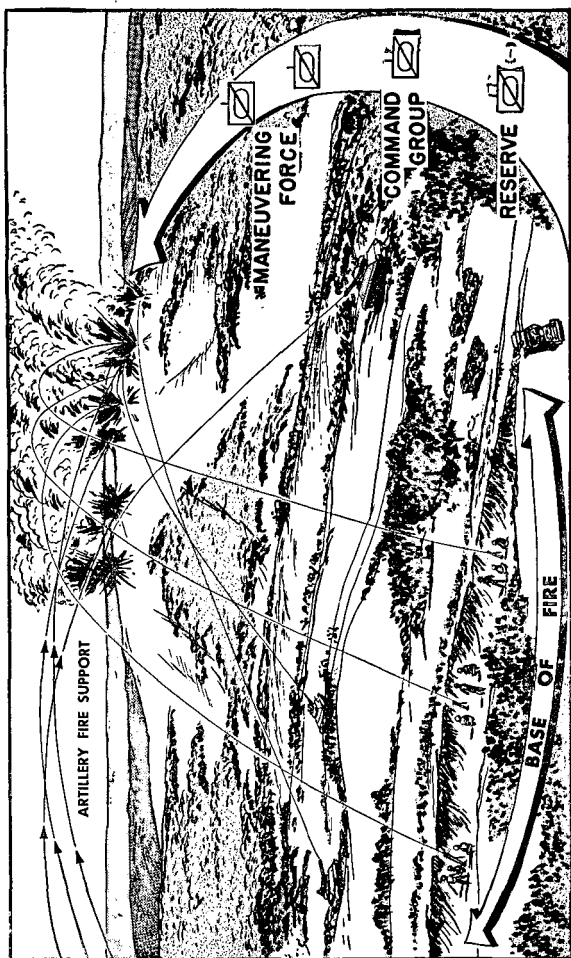


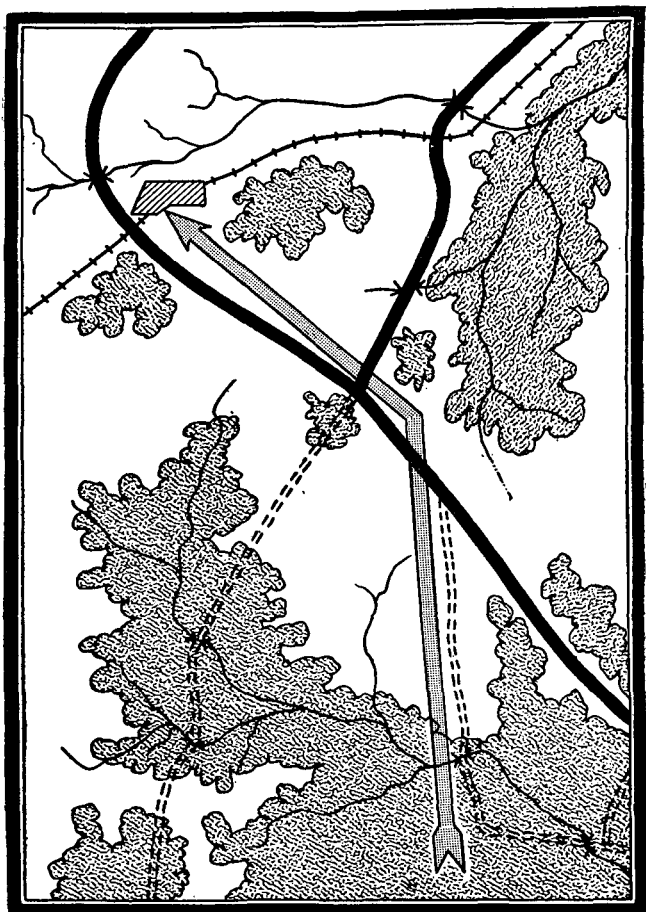
Figure 48. In a coordinated attack, the battalion is normally divided into a maneuvering force, a reserve, and a base of fire.

decisive defeat of the enemy. The best way to accomplish this is by his personal presence at the critical point of the attack. He will usually be immediately in rear of the attacking elements, where he can actually see the greater portion of the action. From this position he can intelligently maneuver his forces and shift fire power to bear on the enemy from the most advantageous directions. Only by placing himself where he can actually see the action can he make the rapid decisions so necessary in modern mechanized warfare.

b. The battalion commander utilizes members of his staff as his personal representatives to assist him in the supervision of the attacking elements. They may be used to procure information, prepare plans, carry orders to the companies, and supervise the execution of these orders.

## **117. CONTROL AND FLEXIBILITY IN THE ATTACK**

a. Control, once lost, is very difficult to regain. The best means of maintaining control is by thorough planning and by issuing a clear, simple order that is understood by all members of the command. During the attack the battalion commander must depend primarily on radio communication for the control and maneuver of his companies. By remaining in a forward position and by maintaining personal contact with his company commanders, he can effectively control the action. The battalion staff should be used to assist the commander in maintaining control, but must not interfere with the company commanders' prerogatives of command.



*Figure 49. If a change in direction is necessary, it should be made at a well-defined terrain feature.*



*b.* Each company of the battalion is a small combined arms team and may be readily adapted to a changing situation. This flexibility is of great advantage if unforeseen circumstances make it necessary to change the plan of action. Major changes should be avoided; however, a favorable opportunity should be exploited without hesitation. If a change in the direction of the attack becomes necessary, it should be made at an easily recognized terrain feature (fig. 49).

## **118. THE ATTACK**

*a.* Once the attack is launched, it must be executed with violence by use of all the fire power available and an alert, aggressive maneuvering force. Fire from tanks, artillery, mortars, and automatic weapons is placed on the enemy to pin him down and prevent him from returning effective fire. Under cover of this fire the maneuvering force maneuvers to rapidly close with the enemy. From the moment this force comes into view of the enemy, its movement must be as rapid as the terrain permits. Each commander must be impressed with the fact that vehicle losses will be in proportion to the time it takes to close on the objective. The rifle squads ride as far as possible in their carriers and then dismount for the final assault. Even after the riflemen dismount, the vehicular weapons should be manned and fired in order to give close support to the dismounted troops. Assault fire by the maneuvering force is continuous so that when supporting fires are lifted the enemy is smothered with fire until he is

destroyed or captured. Aggressive leadership at all levels of command will go far toward increasing the chances for success. Initiative and aggressiveness on the part of small-unit leaders (squad, section, and platoon) will often bring victory out of seeming defeat.

b. When elements of the battalion are employed in the base of fire, they employ every available weapon to pin down the enemy, and thereby assist the maneuvering force in closing with the enemy. The maneuvering force normally takes steps to protect its flanks; however, elements of the base of fire may also have the mission of protecting the flanks of the assaulting troops. They do this by carefully watching the flanks of the maneuvering force and intercepting any enemy threat by fire and, if necessary, by maneuver. Elements of the base of fire must be prepared to displace forward as soon as the maneuvering force masks their fire.

c. The battalion commander must make the decision as to when and where to commit his reserve. The reserve is the battalion commander's primary means of decisively influencing the action and, if committed, should be employed in such a manner as to maintain the momentum of the attack. The reserve is normally employed to exploit initial successes. As soon as the maneuvering force reaches the objective, the reserve is moved forward to assist in organizing the objective and repelling counterattacks.

## **119. THE FINAL ASSAULT**

The attack is culminated by the assault. At this time the maneuvering force physically closes with the enemy. The assault is originated by the maneuvering force and normally begins when this force masks the fire of supporting weapons. Supporting fires are shifted on call from the commander of the maneuvering force, which then moves rapidly onto the objective. Rifle squads dismount and employ assault fire, supported by automatic-weapon and tank-gun fire from the tank element of the maneuvering force. As soon as the base of fire has shifted its fire, elements may be displaced forward to join the assault. The battalion commander coordinates the actions of the maneuvering force and the base of fire elements in the assault; he must place himself in the best position to observe and control this final action.

## **Section IV. REORGANIZATION AND CONTINUATION OF THE ATTACK**

### **120. ACTION UPON REACHING THE OBJECTIVE**

a. The first elements to take the objective should immediately post local security; this is usually accomplished by the first company on the objective and must be planned in detail prior to the attack. This security is extended and reinforced by succeeding companies to cover the most likely avenues of enemy approach and local commanding terrain. The battalion commander should closely follow his leading elements and coordinate these security measures. Plans for defensive fires are prepared;

these fires are delivered primarily by the 81-mm mortars of the support squads. When direct-support artillery is available, the artillery liaison officer assists the battalion commander in planning defensive fires.

*b.* Reorganization starts immediately upon taking the objective. All commanders must make a special effort to reorganize rapidly so the battalion may be prepared to repel a counterattack or to continue the attack with a minimum loss of time. The battalion command post and the battalion aid station are brought forward, and personnel and vehicular casualties are evacuated. At this time resupply and maintenance elements may be moved up as required. If necessary, the battalion may be regrouped, to include a redistribution of personnel and appointment of new commanders to replace casualties.

*c.* The command post should be kept well forward during the attack and should arrive on the objective shortly after it has been secured. It should be placed in a central location to facilitate supervision of the companies; this location is usually selected by the battalion executive officer.

*d.* As soon as possible after reaching the objective, each company commander reports the condition of his unit to higher headquarters. Normally these reports are made verbally. The battalion forwards an over-all report to higher headquarters on the results of the action and the condition of the battalion. If prior orders do not cover the further employment of the battalion, additional orders are requested.

## 121. CONTINUATION OF THE ATTACK

a. The battalion commander should have a complete picture of the over-all plan of action of the higher commander. He also makes a continuous estimate of the situation. By use of this estimate and his knowledge of the higher commander's plan, he can adopt formations which enable him to readily resume operations. If this procedure is followed, the company commanders will need only brief oral orders to resume operations.

b. During the process of reorganization the battalion commander makes a reconnaissance to obtain the information needed to continue his mission. Based on this reconnaissance, his mission, and orders from higher headquarters, he issues an order for continuance of the action. This procedure is generally the same as that followed before the attack, but a more abbreviated form of order may be used.

c. Most battalion-size attacks are made to further a reconnaissance or security mission. Therefore, if enemy resistance has been negligible during the attack, the battalion commander should rapidly continue his mission, using only a minimum of time for reorganization.

## CHAPTER 6

### EXPLOITATION AND PURSUIT

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#### Section I. EXPLOITATION

#### 122. GENERAL

*a.* The reconnaissance battalion normally assists the rapid advance of the armored division during exploitation by performing security and reconnaissance missions.

*b.* Normally, when given a reconnaissance mission, the battalion is employed on the flank or flanks of the division. Under certain such circumstances, such as conditions of no resistance or very light, sporadic resistance, the division commander may take advantage of the battalion's rapid mobility and place it in front of the division on a reconnaissance or covering force mission.

*c.* The division commander may also employ the battalion as a separate force on a special mission. In that event the battalion is employed as an exploiting force rather than as a security force.

*d.* During the exploitation, the battalion is normally employed directly under the control of the division commander. However, one or more companies may be attached to combat commands.

*e.* The battalion may have the mission of establishing a counterreconnaissance screen for the division in the event of a halt or assembly for reorganization or resupply.

## 123. CHARACTERISTICS OF EXPLOITATION

*a.* The primary purpose of exploitation operations is to take full advantage of success in battle and to follow up initial gains. During exploitation, enemy resistance normally is sporadic and consists of scattered centers of resistance, with little or no communication or supply between strong points. The enemy is confused and disorganized and relies on obstacles and defense of separated points, which normally are the larger towns and cities in the area. The exploiting force must reach the designated objective as quickly as possible, secure it from possible counterattack, and prepare to continue exploiting the success. To take full advantage of this phase of combat, men and vehicles must be pushed to the limit of endurance. The exploitation phase of combat is usually characterized by the following:

- (1) Rapid advances against little or no opposition.
- (2) Frequent attacks from march column.
- (3) Bypassing or enveloping strong centers of resistance.
- (4) Meeting engagements with groups of enemy reinforcements.

*b.* The purpose of a penetration is to break through the enemy's dispositions and thereby to provide an opportunity for exploitation. Although the actual point of transition from penetration to exploitation is difficult to define, the approach of the exploitation phase will be indicated by—

- (1) Distinct lessening of enemy resistance, particularly of artillery fire.
- (2) Decisive gains made by the attacking force.
- (3) A definite increase in number of prisoners captured and amount of abandoned equipment.
- (4) Capture of divisional or corps rear area installations.

## **124. OBJECTIVES IN EXPLOITATION**

*a.* Objectives for the armored division will be deep in enemy-held territory and may be defiles or river crossings which would be costly to take if the defense were organized or which will cut off the enemy line of retreat. Examples of division objectives are—

- (1) A communications or manufacturing center.
- (2) A supply area.
- (3) Site of a major military headquarters.
- (4) An airhead established by friendly airborne troops.

*b.* The battalion's final objective normally is assigned by higher headquarters. The reconnaissance battalion commander selects intermediate objectives as necessary to facilitate accomplishment of the mission. These intermediate objectives are usually critical terrain features which block enemy avenues of approach.



## **125. FLANK SECURITY MISSIONS IN EXPLOITATION**

During exploitation the reconnaissance battalion, when assigned a flank security mission, usually operates over a wide frontage. This extension and the rapid progress of the division requires the battalion to employ a thin, mobile security formation. This normally causes the battalion to use a column formation. The headquarters forward echelon should be centrally located within the column. The trains are placed in the rear of the column, protected by the rear reconnaissance company. For a detailed discussion of flank security methods, see chapter 3.

## **126. RECONNAISSANCE MISSIONS IN EXPLOITATION**

a. During exploitation the battalion may be given a reconnaissance mission to locate and identify an enemy force. The battalion is normally assigned a zone of operations for this mission, and the battalion commander should further assign company zones and an axis of advance for the headquarters forward echelon and reserve. The battalion commander may utilize phase lines to assist him in controlling the reconnaissance companies, unless phase lines are already designated by higher headquarters.

b. To accomplish this mission the battalion must utilize its fire power and mobility boldly and aggressively, and not depend on secrecy and stealth. The forward echelon, battalion trains, and reserve are normally held in a central location immediately behind the leading companies. Army

aircraft can materially assist the battalion in accomplishing a reconnaissance mission. For a more detailed discussion of reconnaissance methods, see chapter 4.

## **127. RECONNAISSANCE BATTALION AS A SEPARATE EXPLOITING FORCE**

a. When the frontage of the division is large and the enemy resistance is weak and disorganized, the division commander may assign an axis or route to the reconnaissance battalion for exploitation. The battalion's axis or route normally is on one of the division's flanks; however, the mission is one of exploitation rather than flank security.

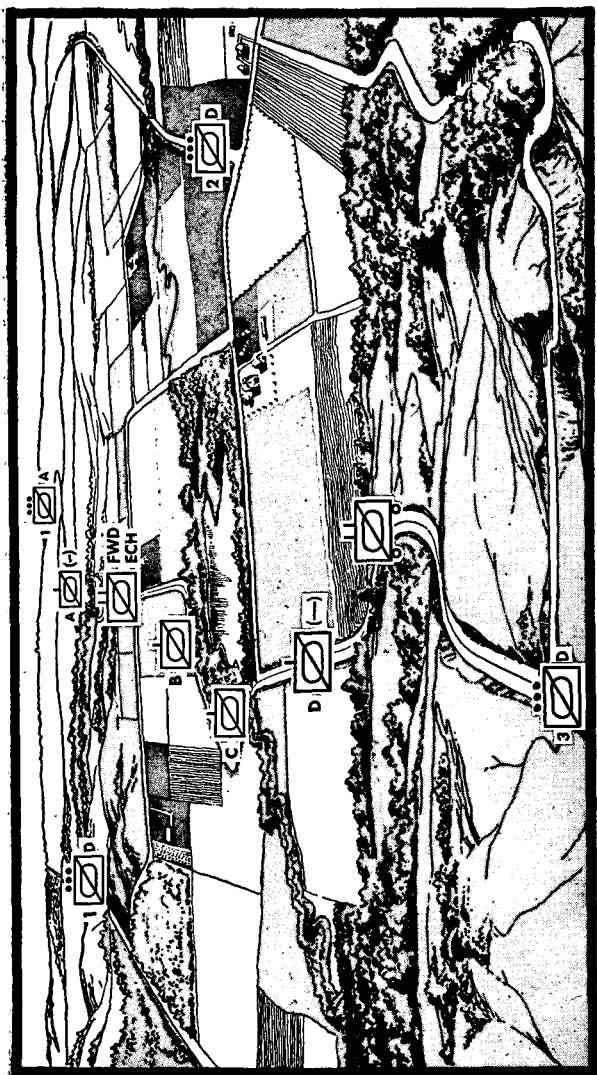
b. The battalion is normally given an axis of advance which will allow it to advance in column on the best available road. The forward echelon should follow immediately behind the forward elements, where it can best direct the rapid advance or deployment of the battalion. The battalion trains are held in the rear of the column, protected by the rear reconnaissance company. Isolated enemy defense areas are usually bypassed for more profitable objectives unless these areas are being used to re-establish a line or to prohibit the advance of supplies. The decision to bypass a major enemy strong point normally rests with the higher commander. Small enemy elements are generally attacked from march column. If the leading company meets more resistance than it can cope with, the battalion commander should launch a coordinated attack. This attack follows

the principles set forth in chapter 5. Army aircraft can assist in providing security for the column by observing to the front and flanks and maintaining liaison with nearby units. A successful exploitation is dependent on the speed and aggressive leadership of the exploiting force. The speed and mobility of the reconnaissance battalion must be fully utilized when it is employed as a separate force on an exploitation mission.

c. In order to achieve complete surprise and exploit success to the fullest, the advance is normally continued during the night. The conduct of the advance at night is generally the same as in the daytime. The rate of advance is usually slower, and supporting fires are less effective, but the element of surprise is greatly enhanced. When enemy resistance is encountered, it may be bypassed or attacked; an attack is made from march column. The general principles of employment are the same as those used in a deliberate, planned night attack as discussed in paragraph 194; but planning and execution are much more rapid.

## **128. SECURITY ON EXPLOITATION**

During the exploitation, the battalion will probably be deep in enemy territory and subject to enemy attack and harrassment. Therefore, the battalion commander must insure adequate security for his column. This security may be provided by using Army aircraft for observation to the front and flanks, maintaining liaison with nearby units, and the individual alertness of all members of the command. The battalion comman-



*Figure 50. One method of establishing security when the battalion is advancing in column on exploitation.*

der normally employs a security force to cover the main column (fig. 50); this force provides security by observation, attack, defense, or a combination of any or all of these. The security force is normally composed of the following elements:

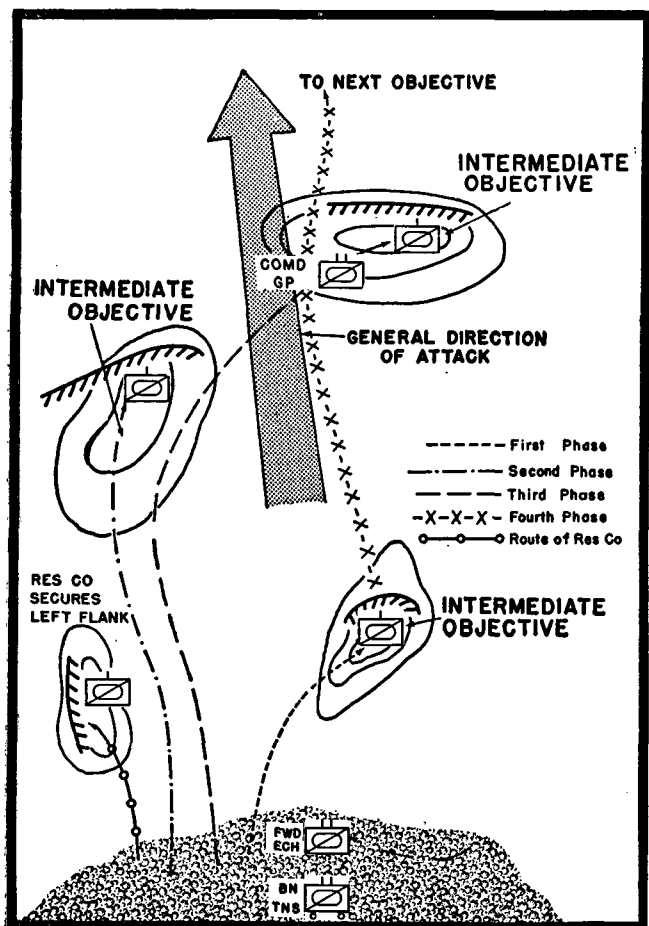
*a. Advance guard.* The advance guard of the battalion normally is the leading company. The remainder of the battalion follows the advance guard without interval.

*b. Flank guard.* The flank guard secures one or both flanks of the column. It may do this by using parallel routes or by moving out from the main column and blocking likely avenues of enemy approach. This flank security normally is the responsibility of one reconnaissance company.

*c. Rear guard.* The rear guard secures the rear of the column and protects the trains. It normally consists of one reconnaissance platoon. One reconnaissance company may very well be given the mission of providing both the flank and rear security for the battalion column.

## **129. ATTACK OF SUCCESSIVE OBJECTIVES**

*a.* During exploitation, resistance normally is weak and sporadic. When it becomes necessary to launch an attack, the battalion commander may plan an attack of successive objectives (fig. 51). In this type of action the companies of the battalion are employed in rapid succession to capture a series of objectives. By this method the battalion can advance rapidly when the full strength of the unit is not needed to take any single objective.



*Figure 51. In the attack of successive objectives, each objective is assaulted in turn; the assaulting force is supported by all available fire power,*

This method is particularly effective against small villages or other small objectives along the axis of advance. It may be employed equally well on a security, reconnaissance, or separate exploiting force mission.

b. The companies are employed alternately as maneuvering force and base of fire. After the first objective is taken, the maneuvering force mops up remaining resistance on that objective. The battalion commander must be sure that the attacking company can hold and reduce the objective before he commits the next company. One or more of the companies in the base of fire are then employed as the maneuvering force against the second objective. The initial maneuvering force then becomes a part of the base of fire in addition to its duties of mopping up the first objective. In like manner a third company may attack through the second to seize the third objective. By this time the first company normally is ready to continue the attack. This method usually leaves one company that is not engaged; the battalion commander may use this company as a reserve to maintain the momentum of the attack or to meet enemy counterattacks.

c. If direct-support artillery is available, an artillery fire support plan should be worked out in advance for this type of action. In an attack of successive objectives, all available fire power of the battalion is concentrated at one point. After this point is captured, the fire can then be concentrated on the next objective.

### **130. SECURITY AT HALTS ON EXPLOITATION**

When the column halts, the various companies move forward and deploy in adjacent areas on each side of the axis. All-round defense measures are taken by each company commander and are coordinated by the battalion commander. By shortening the column in this manner, the battalion commander increases his control and at the same time reduces the vulnerability of his unit. This procedure also permits the battalion commander to readily continue his advance or launch an attack. This "coiling up" maneuver is employed at all halts except those of only a short duration (fig. 10). At the halt, as when on the march, the alertness of the individual soldiers materially assists in security of the battalion.

### **131. CONTROL IN EXPLOITATION**

The battalion column must be kept under control at all times in order to insure that it can react quickly from the march column formation. Strict march discipline is a basic requirement for control of the elements of the battalion. By remaining near the head of the column where he can see the action, the battalion commander can facilitate supervision and control of his unit. Objectives, phase lines, control points, controlled rates of advance, and axes are normal means of controlling the companies. These means must be supplemented by dependable communication and command and staff supervision.



### 132. GENERAL

*a.* Pursuit has as its main purpose the physical capture or destruction of a retreating enemy. The pursuing force must, by direct pressure against the withdrawal and by an enveloping or encircling maneuver, attempt to place troops across the enemy's line of retreat. The enemy may not necessarily be disorganized and may attempt to slow the advance by the use of a rear guard. This rear guard will attempt to create the illusion of being the entire enemy force. Every effort should be made to break through this element and contact the main body. Darkness and difficulties of terrain must not be allowed to check the pressure of the pursuit; contact, once gained, must be maintained. Reserves are employed where progress seems to be the greatest.

*b.* Destruction of a withdrawing enemy is usually accomplished by the use of a direct-pressure force and an encircling force (fig. 52). The direct-pressure force pursues the enemy and, by maintaining contact, attempts to force him to stop and fight. The encircling force maneuvers to place troops across the enemy's lines of retreat and to close with his main body. Pursuing forces must close with the enemy with the least possible delay and prevent him from organizing a new position. The faster and more aggressive the pursuit, the less effective is the commitment of the enemy reserves.



*Figure 52. Actions of the direct-pressure force and the encircling force in a pursuit.*

### **133. RECONNAISSANCE BATTALION MISSIONS IN PURSUIT**

When the armored division is engaged in pursuit, the reconnaissance battalion may be given the mission of securing one or both flanks of either the direct-pressure force or the encircling force (pars. 75-78), or may be assigned the mission of seizing and securing certain bridges, defiles, cross-roads, or other critical points on the enemy's flanks (ch. 5). The battalion may also be given a reconnaissance mission (ch. 4) if the enemy has broken contact with friendly troops. The battalion may also be employed as all or a portion of either the direct-pressure force or the encircling force (pars. 136 and 137).

### **134. BATTALION FORMATIONS FOR PURSUIT**

The mission assigned the battalion, the terrain, and the enemy situation are the primary factors in determining the formation to be used. If contact has been broken and the battalion is given the mission of reconnoitering and regaining contact, the battalion commander should adopt a suitable reconnaissance formation as discussed in chapter 4. When given the mission of securing the flanks of either the encircling force or the direct-pressure force, the battalion commander may employ one of the formations discussed in chapter 3. Formations used when the battalion is acting as all or a portion of the direct-pressure force or encircling force are discussed in paragraphs 136 and 137.

### **135. CONTROL IN PURSUIT**

The battalion commander uses those methods of control which best fit the situation. A successful pursuit depends on speed and aggressiveness; therefore, the battalion commander should not restrict the maneuver and ingenuity of his subordinates by excessive control measures. Desirable means of control may include use of an axis or axes, designating an objective, designating phase lines or control points, and specifying zones of action. The battalion commander should place himself with the bulk of his force, where he can personally supervise his forward elements and push the pursuit to the utmost limit of endurance of his troops and vehicles.

### **136. BATTALION OPERATIONS AS DIRECT-PRESSURE FORCE**

*a.* When the major portion of the division is operating as an encircling force, the battalion may be used as a portion of the direct-pressure force (fig. 53). The battalion advances in its zone, using all available roads to quickly close with the retreating enemy. Every effort is made to break through the enemy delaying forces. Once through these delaying forces, the reconnaissance battalion attempts to contact the enemy main body and force it into action. This greatly assists the friendly encircling force to strike the enemy on his flank or cut his line of retreat.

*b.* When the enemy has been forced to halt and establish a defensive position, the battalion continues to maintain constant pressure on the enemy

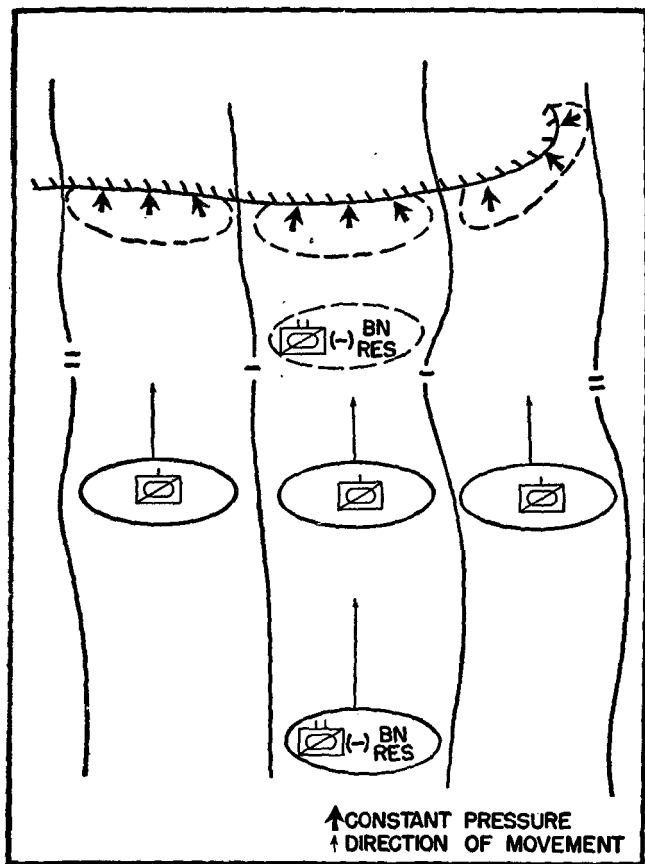


Figure 53. When the battalion is acting as a part of the direct-pressure force, the reconnaissance companies move forward rapidly until contact is gained and then maintain constant pressure.

by fire and movement. This is often best accomplished by allowing each company to exert pressure in its zone rather than by launching a battalion attack at only one point. If the battalion has a reserve, it may be employed to strengthen the fires of any one company; however, care must be taken not to get the reserve so involved as to preclude its use as a counterattacking force.

### **137. BATTALION OPERATIONS AS AN ENCIRCLING FORCE**

When the enemy is extremely disorganized, the reconnaissance battalion may be employed as an encircling force. The battalion may act alone on this mission or in conjunction with another larger encircling force. This mission may be assigned when the bulk of the division has become engaged with the retreating enemy and a light, mobile force is needed to effect an encirclement. Included in such a mission may be the task of cutting the enemy supply lines. This requires seizing and defending critical defiles on the enemy line of retreat. During the encirclement, the reconnaissance battalion may facilitate rapid movement by using a column formation on the secondary and less frequented roads. When operating as a separate encircling force, the battalion accomplishes its mission in the same manner as when operating as a separate exploiting force (par. 127).

## 138. RECONNAISSANCE IN PURSUIT

*a.* If contact is lost, the reconnaissance battalion may well be employed on a reconnaissance mission to regain contact and if possible to determine the location of the enemy main body. In accomplishing this mission, the battalion normally operates on a wide front. Since knowledge of the location of the withdrawing enemy columns is essential, the reconnaissance of the zone must proceed with the utmost speed, using secondary as well as primary roads. The battalion commander should seek to keep at least one company in reserve in order to exploit any information that might be obtained. Full use is made of Army aircraft to aid the ground elements in a reconnaissance to regain contact. For a detailed discussion of a reconnaissance mission see chapter 4.

*b.* After contact with the enemy is regained, the battalion attempts to slow down the enemy retreat. As the main body of the division closes on the enemy position, the battalion may move to the flanks. At this time, the mission of the battalion may be changed to that of an encircling force to cut the enemy lines of retreat or to hold critical terrain features on the enemy's flanks until the arrival of the main encircling force.

## CHAPTER 7

### DEFENSIVE OPERATIONS

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#### Section I. GENERAL

#### 139. PURPOSE OF DEFENSE

Armored units are primarily designed for offensive action, but because of their versatility they may be used on defensive missions. Defensive combat is employed by armored units for one or two purposes:

*a. To gain time pending the development of more favorable conditions for undertaking the offensive.* This may be made necessary by a shortage of troops or inferiority in training, or may be desirable because of the anticipated arrival of reinforcements.

*b. To economize forces on one front for the purpose of concentrating superior forces elsewhere for decisive action.* The defense in this situation is usually directed by higher headquarters. It may be necessary in order to hold a vital area pending maneuver by other forces, to hold one area while an attack is made in another, or to concentrate supplies on the portion of the front where the main effort is being made.



## **140. TYPES OF DEFENSE: SUSTAINED AND MOBILE**

a. The sustained defense is aimed at stopping the enemy attack at an organized defensive line or main line of resistance. Counterattacks are normally launched for the purpose of restoring this position if it has been penetrated or endangered by an enemy attack. The sustained defense is normally employed by infantry divisions. This type of defense may be employed by an armored division when it is occupying a sector of a corps defensive position in conjunction with infantry divisions.

b. Mobile defense is normally employed by the armored division when acting alone, or when its sector is too large to permit employment of sustained defense. Mobile defense is the defense of an area or position in which maneuver is used with organization of fire and utilization of the terrain to take the initiative from the attacker. An outpost system is established, behind which a strong, mobile reserve is held to be used as a counterattacking force. The outpost system is often established well beyond the area or position to be defended, thereby providing sufficient space for maneuver by the defending force.

## **Section II. SUSTAINED DEFENSE**

### **141. GENERAL**

When the armored division engages in a sustained defense, the reconnaissance battalion is normally employed in one or more of the following roles (fig. 54) :

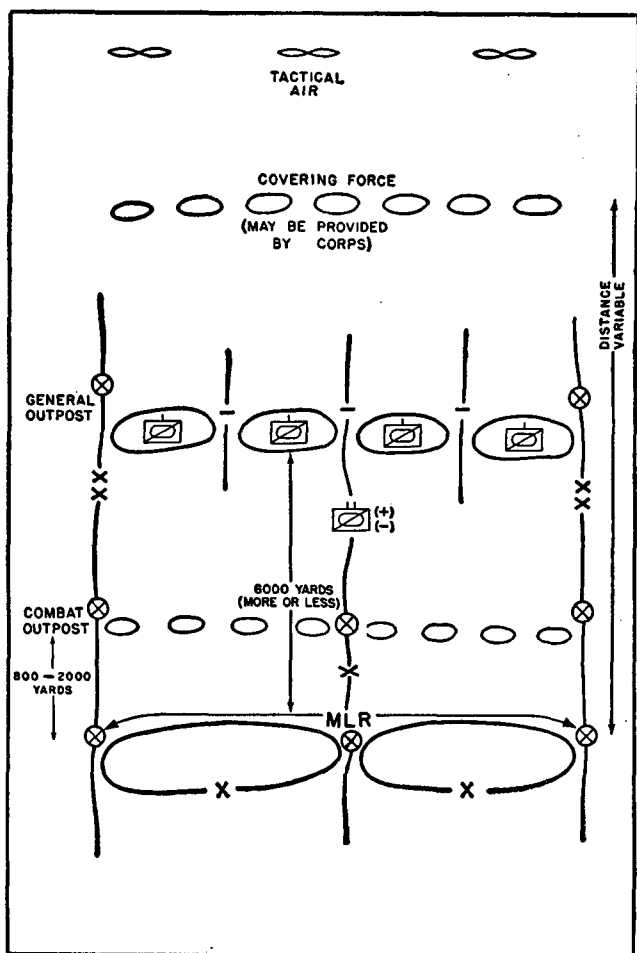


Figure 54. General concept of sustained defense.

*a. As all or part of the covering force for the division.* The reconnaissance battalion may well be employed as a covering force in front of the general outpost; as such it has the mission of providing early warning of the approach of a hostile force and of inflicting the maximum delay on the enemy. When employed as all or part of the covering force, the reconnaissance battalion is normally supported by artillery and engineers. Execution of this mission is discussed in paragraph 73.

*b. As a general outpost for the division.* When employed as the general outpost for the armored division, the battalion has the mission of giving warning of an enemy approach, delaying and disorganizing the enemy, and deceiving him as to the true location of the main line of resistance. The location of the general outpost is normally prescribed by the division commander and should deny the enemy ground-observed artillery fire on the battle position. It should also afford good observation and fields of fire and, where practicable, obstacles to the enemy advance. Formation and employment of this type of security force are discussed in paragraph 142.

*c. As an antiairborne security force.* If an enemy airborne threat exists, the reconnaissance battalion may be employed in the rear of the armored division as an antiairborne security force. This method of employment is discussed in paragraphs 206-210.

*d. Holding a sector of the MLR.* When the armored division is engaged in a sustained defense as part of a corps, the sector assigned may be of

such width that the division will have difficulty in holding the entire front in strength. The reconnaissance battalion might then be used as a division reserve or, more normally, be given a sector on the main line of resistance. Because of the limited rifle strength of the battalion, its sector normally is in one of the less critical portions of the battle position or is reduced in width as compared to the sector of an armored infantry battalion.

*e. As a flank security force.* In a sustained defense the battalion is frequently employed on one or both flanks of the division. The battalion's mission is to secure the flank or flanks and also to maintain contact with adjacent units. Flank security missions are discussed in paragraphs 75-78.

#### **142. RECONNAISSANCE BATTALION ACTING AS A GENERAL OUTPOST**

*a.* When the armored division engages in a sustained defense, the division commander normally employs a general outpost. The mission of the general outpost is to give information of the approach, location, and strength of the enemy, to disorganize his advance, and to deceive him as to the true location of the battle position.

*b.* The reconnaissance battalion may be employed to form all or a portion of the general outpost. When given this mission the battalion is normally reinforced with medium tanks, armored infantry, engineers, and direct-support artillery. To form a general outpost the battalion is normally divided into three echelons: a security echelon, a system

of supports, and a reserve. The security echelon may consist of patrols, observation posts, and other small security elements, which are sent out from the various supports. The supports make up the main body of the general outpost. They are placed on critical terrain which controls the enemy approaches into the outpost area. Extended frontages are covered by increasing the intervals between the supports; these intervals are covered by observation and fire. The reserve is so located as to be able to reinforce the supports, to counter-attack, and to cover the daylight withdrawal of the supports.

c. The battalion commander should make a map and personal reconnaissance of the outpost position. His plan of action is based on his mission and his reconnaissance, and should include security measures; disposition of companies on the position; organization and coordination of fire; organization of the ground; means for delay, deception, and disorganization of the enemy; and movement to successive positions in the rear. He then designates the reconnaissance companies which will form the supports; in addition, he may designate some elements of the battalion as the outpost reserve. The supports form their own patrols and observation posts; these are coordinated by the battalion commander. The supports constitute the outpost's line of resistance; they establish positions on the best available defensive ground, covering likely avenues of approach. Each support is assigned a definite sector, the boundaries of which are defined on the terrain. The

reserve, when used, occupies a central position from which it can move rapidly to counterattack or to reinforce the supports.

d. In the conduct of the defense, the patrols and observation posts observe, report, and delay the enemy's advance. They withdraw to the supports along preplanned routes of withdrawal. After the security echelon has withdrawn, all supporting weapons of the outpost system are employed to inflict maximum losses upon the advancing enemy. Every effort is made to bring about an early deployment of the enemy and to force him to bring his artillery into action. Whenever the opportunity exists, the reserve conducts a counterattack to destroy the enemy.

e. The withdrawal of the general outpost must be coordinated by the division commander, because it is essential that all divisional agencies know when this force is withdrawn. It begins its withdrawal to subsequent positions as soon as it is apparent that a superior force is deployed for action. Action upon each successive delaying position is designed to delay the enemy as much as possible and to cause him to deploy the maximum number of units.

#### **143. BOUNDARIES AND LIMITING POINTS IN SUSTAINED DEFENSE**

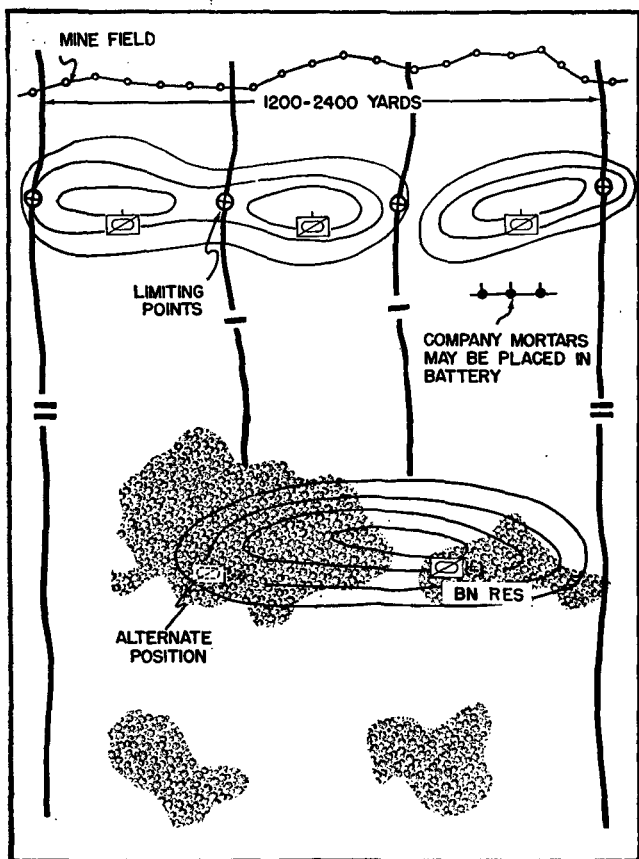
When the battalion is assigned a sector of the battle position, its boundaries and limiting points are assigned by higher headquarters. The battalion commander in turn assigns defense areas to the reconnaissance companies by indicating the gen-

eral position to be defended and by designating boundaries between companies (fig. 55). He also designates limiting points on the boundaries where the company commanders are to coordinate their defense. The limiting points are so fixed as to assign frontages to the companies in accordance with the terrain and avenues of approach. Complete responsibility for any one avenue of approach or critical terrain feature is given to only one company. Boundaries are extended forward to the extent of observation or to the range of the weapons employed, whichever is greater. Boundaries are extended to the rear to the limit of the company's defense area.

#### **144. RECONNAISSANCE AND PLANNING FOR SUSTAINED DEFENSE**

*a.* In the sustained defense, orders to the battalion commander designate the area to be defended, giving boundaries and limiting points. Having received his order, the battalion commander first makes a map and personal reconnaissance. The reconnaissance is as detailed as the time and situation permit and is made from two viewpoints: from the viewpoint of disposition of friendly forces and from the viewpoint of the enemy attacking the selected position. The battalion commander determines the likely avenues of enemy approach and the critical terrain features. He should plan to dominate all of these with strong positions.

*b.* Basing his action on the mission, orders from higher headquarters, his reconnaissance, and the available information of the enemy, the battalion



*Figure 55. The reconnaissance battalion holding a sector of the front line in sustained defense.*



commander forms an estimate of the situation. He then makes his decision as to the number of troops to be placed in the main line of resistance, assignment of defense areas to the companies, strength and location of the reserve, and the measures necessary for security. Successive reconnaissances by the company commanders fix on the ground the distribution of smaller units.

#### **145. SELECTION OF POSITION FOR SUSTAINED DEFENSE**

a. The mission, situation (including enemy capabilities), and terrain limit the choice of locations where the defense is to be conducted. Higher headquarters frequently orders the battalion to defend a certain position, in which case the battalion commander has little choice in the selection of the battalion position. He does, however, determine his organization within the battalion position.

b. The position should be on commanding terrain. The most important factors are observation, fields of fire, concealment, obstacles, and routes to the rear. The terrain to the front of the position should canalize the enemy and offer him a minimum number of approaches to the position. The battalion commander must decide whether to establish his main defense on a forward or a reverse slope, after carefully weighing the advantages of each. Depending on orders from higher headquarters, the battalion may initially attack or withdraw in order to gain a position from which to conduct its defense; by so doing it may secure the best ground available for the battle position.

## 146. DISPOSITION OF UNITS IN SUSTAINED DEFENSE

a. The battalion commander assigns a proportionate share of the battalion mission to each of the companies. The number of companies employed and the width of each company sector depend on the width of the battalion sector, the terrain, the existing road net, and the size of the expected enemy threat. In assigning company areas, the battalion commander must bear in mind that he does not have the rifle strength of an armored infantry battalion. However, he should not hesitate to direct his company commanders to dismount such personnel as may be necessary to adequately man the battle position.

b. The battalion commander retains as large a reserve as is possible consistent with the situation. The primary mission of the battalion reserve is to destroy enemy elements which have entered the defensive positions. The position occupied by the reserve should permit easy access to all parts of the battalion defense area, should offer cover and concealment, and should provide ample room for dispersion. Firm standing for vehicles is essential. The reserve also provides depth to the battalion position and when given a blocking mission occupies key terrain in the rear of the area so as to block likely enemy penetrations. Alternate positions are selected which will block penetrations that cannot be contained from the primary position.

## **147. ORGANIZATION OF THE GROUND IN SUSTAINED DEFENSE**

Immediately upon the occupation of the position, steps are taken to strengthen the defenses by emplacing weapons, preparing cover for individuals, clearing fields of fire, and erecting obstacles. Measures for concealment and camouflage are carried out concurrently. Obstacles, to include mines, are located to stop or divert the enemy attack and to hold the enemy in areas covered by automatic weapons and tank guns. Obstacles should be so placed that their removal by the enemy can be prevented by machine-gun or rifle fire. Supplementary positions are prepared to be occupied in the event of an enemy attack from another direction or to cover an avenue of approach not otherwise covered.

## **148. RESERVE IN SUSTAINED DEFENSE**

The reserve is employed to block an enemy penetration, or to counterattack and restore the battle position after a penetration has been contained or halted by other elements of the battalion. The battalion commander must make counterattack plans. These plans include the scheme of maneuver, attack positions, routes to the attack positions, probable objectives, and supporting fires. They are disseminated to subordinate commanders as soon as possible; this is particularly important to the commander of the reserve, because he must make detailed plans and a personal reconnaissance of the various positions, routes,

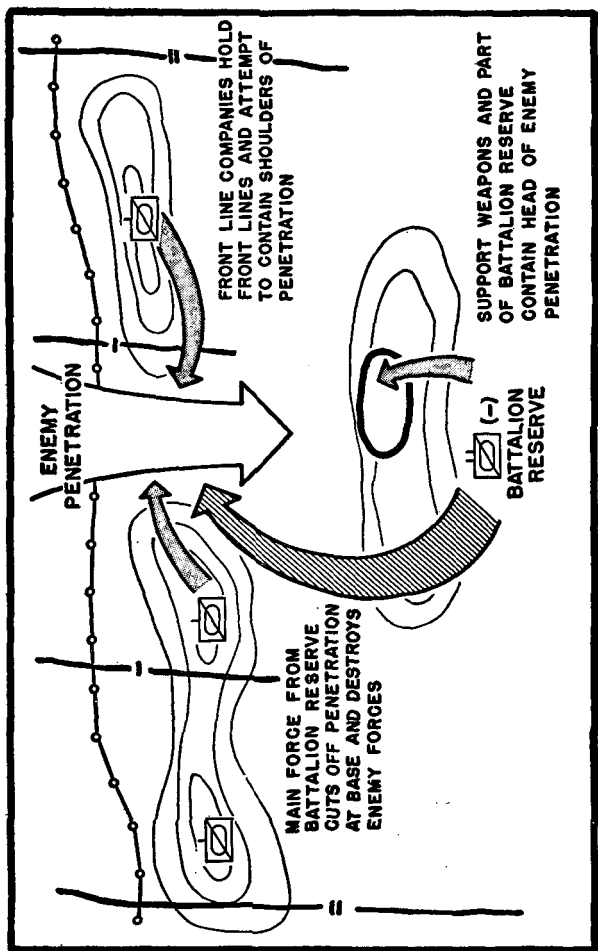


Figure 56. Counterattack by the battalion reserve in the sustained defense.

and objectives included in the counterattack plans. The counterattack should be launched while the enemy is attempting to reorganize and is most successful when delivered against the flanks of the penetration. When launched, the counterattacks has first priority on all available fires (fig. 56).

#### **149. FIRE PLAN FOR SUSTAINED DEFENSE**

*a.* The battalion commander, in conjunction with the artillery liaison officer, must work out a fire plan to cover—

- (1) Long-range fires. These are planned to engage the enemy as early as possible, to inflict casualties, to delay his advance, to disrupt his organization, and to neutralize his supporting artillery. They are normally provided by the light and medium artillery of the armored division.
- (2) Close defensive fires. These are planned to destroy the integrity of the attacking force before an assault is launched, by inflicting the greatest number of casualties possible, by disrupting command and control and by denying observation. These fires are delivered by all weapons which can be brought to bear on the enemy in his attack positions and until he launches his assault.
- (3) Final protective fires. These are planned fires to break up the enemy assault by

placing a band of concentrated fires just in front of and across the main line of resistance. They include machine-gun final protective lines, mortar barrages, artillery barrages, direct fire from tanks, and intense rifle fire.

- (4) Fires within the position. These are planned to limit possible penetrations of the battle position and to support counterattacks. They are delivered by all the weapons capable of firing into the penetrated area.

b. The battalion endeavors to stop the enemy in front of the main line of resistance. All available fire power is concentrated on the enemy when he attacks the battle position. Tanks in hull-defilade positions cover the most likely avenues of hostile mechanized approach. Machine-gun fires are interlocking whenever possible. The reconnaissance companies, 81-mm mortars cover positions that cannot be reached by flat-trajectory weapons, and if practicable are placed in battery under company control. Each unit entrusted with the defense of an area or sector must defend it until relieved by orders from higher headquarters. Troops must be impressed with the fact that the successful holding of their positions forms the basis for successful counterattacks by the reserves in the rear.

## **150. SECURITY IN SUSTAINED DEFENSE**

The foreground of the battle position is occupied by combat outposts detailed from units hold-

ing sectors of the battle position (fig. 54). This security element is placed well forward of the position, on the most favorable terrain, to give early warning of enemy approach. Patrols and listening posts may operate between defense areas within the battle position to minimize the possibility of enemy infiltration during hours of darkness and periods of low visibility. Contact with adjacent units is established and close liaison is maintained so that the battalion is kept fully informed of developments in adjacent areas. Every effort is made to deceive the enemy as to the actual location of the battle position; this is accomplished by concealment and camouflage and by keeping movement within the position to a minimum. Movement to the rear is restricted to well-concealed routes and hours of darkness.

## **151. CONTROL IN SUSTAINED DEFENSE**

Control is necessary for coordinated and effective action. The battalion commander positions himself where he can best influence the course of action. He is initially located at the battalion command post and then moves, as necessary, to any place in the battalion area where he can best direct the companies. Command and control are exercised through messengers, radio, wire, and the battalion staff. Sustained defense is one of the few combat situations in which the battalion may make extensive use of wire communication. For a typical wire net see appendix II.

## 152. BATTALION ATTACHMENTS OR SUPPORT FOR SUSTAINED DEFENSE

Although normally employed without attachments, the battalion, when given a portion of the battle position, may possibly be reinforced or supported by other units within the armored division. These supporting units may include tanks, armored engineers, and direct-support artillery.

*a.* Tanks may be attached to the reconnaissance battalion when a definite threat from enemy armor exists on the battalion front. This attachment increases the battalion's fire power and shock effect, and provides the battalion commander with a reserve with which to combat enemy armor. Normally, attached tanks operate under battalion control and should be used in mass at a critical time and place. They may be further attached to the companies on the main line of resistance when their heavier armor protection and larger caliber gun will permit the local defeat of enemy armor.

*b.* Armored engineers may be placed in support of the battalion in the sustained defense. They assist in the defense by supervising the erection of obstacles, laying mines, performing demolition work, and giving technical advice. Working parties of armored engineers must be protected by elements of the battalion while they are performing tasks assigned by the battalion.

*c.* Armored field artillery may be placed in direct support of the reconnaissance battalion. When artillery support is made available to the battalion, it is immediately made available to all



units of the battalion capable of requesting and adjusting fire. The direct-support artillery normally assigns a minimum of one forward observer to each reconnaissance company; however, all reconnaissance commanders should be capable of requesting and adjusting artillery fire.

*d.* In the defense, organic or attached Army aircraft may be used for reconnaissance to warn of approaching hostile forces, for adjustment of supporting fires, for liaison and messenger service, and for emergency assistance in the relay of radio communication.

### **Section III. MOBILE DEFENSE**

#### **153. GENERAL**

*a.* The mobile defense is based on the establishment of an outpost system and a strong, mobile reserve. The outpost system is composed of observation posts (listening posts at night) and strong points of varying strength, their strength depending on their mission, the enemy, the terrain, and the troops available. The observation posts and listening posts are sent out from the strong points with the mission of observing enemy activities and reporting these activities to the proper headquarters, and of directing artillery fire. The strong points are tactically located on critical terrain features, covering likely avenues of enemy approach; they are mutually supporting in so far as possible, and have the mission of deceiving, slowing, stopping, and repelling the

enemy. The reserve is held at the highest practicable headquarters, in the greatest possible strength, as a counterattack force. It should be so located in rear of the strong points as to facilitate maneuver when it counterattacks to destroy any enemy force which endangers the defensive positions.

b. Troops engaged in the mobile defense are usually positioned well in front of the area to be defended, in order to insure that all critical terrain and avenues of approach are covered. This results in extended frontages, but at the same time provides sufficient room for maneuver of the defending forces. Thus the concept of mobile defense provides for giving ground, if necessary, rather than holding a fixed line. Because of its great mobility and heavy fire power, the armored division is ideally suited to employ mobile defense.

c. The reserve is an extremely important element of the mobile defense. It has the mission of defeating the enemy attacking force; therefore it must be relatively large and should consist of combined arms teams heavy in tanks. It must be employed aggressively, taking full advantage of its mobility and fire power, to overwhelm the enemy attacking force at the time and place the commander has selected. When employed as a counterattacking force it should be committed as a unit and not piecemeal. Mine fields and obstacles are utilized in accordance with the time available, terrain, and orders from higher headquarters. However, no obstacles or other barriers

will be constructed that will hinder the maneuver of the strong points or the reserve.

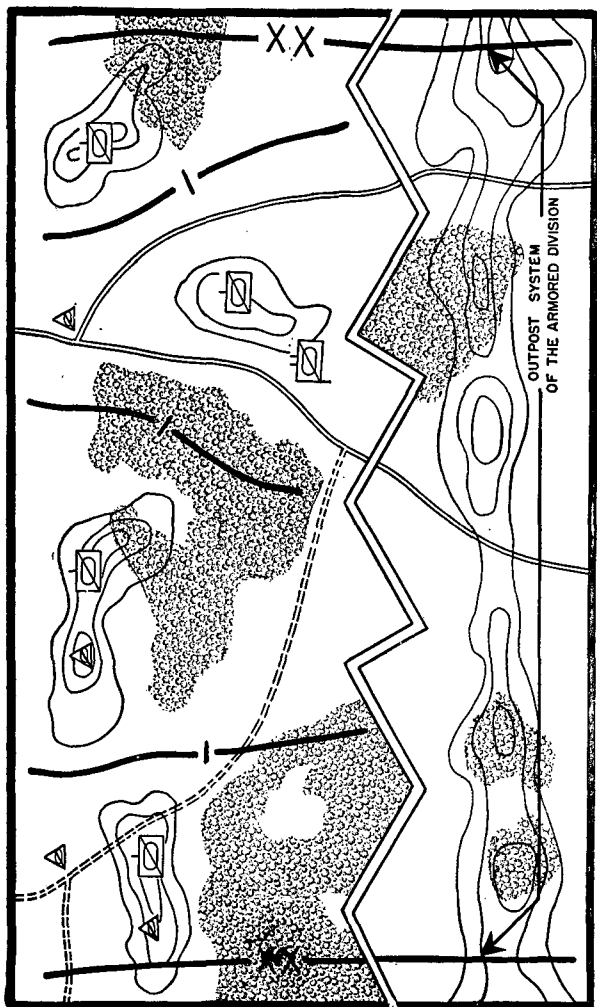
*d.* The armored division is frequently forced to take up a mobile defense to gain time. This may be caused by its arrival on the objective far in advance of other troops, or because supplies have failed to keep up with the advancing units.

#### **154. MISSIONS OF RECONNAISSANCE BATTALION IN MOBILE DEFENSE**

*a.* When the armored division is engaged in a mobile defense, the reconnaissance battalion is frequently employed as a covering force beyond and independent of the outpost system of the higher command (fig. 57). This mission normally requires the battalion to operate over such a wide frontage that a reserve cannot be formed. When the battalion is employed in this manner, it has the mission of providing early warning of enemy approach and disorganizing, deceiving, and inflicting the maximum delay on the enemy. Execution of this type of mission is discussed in paragraph 73.

*b.* As in the sustained defense, the battalion may also be used to secure rear areas and as an anti-airborne force. Principles of employment for these types of missions are discussed in chapter 9.

*c.* When the battalion is given a sector in the division or combat command mobile defensive area, or if the battalion is forced to take up the defensive while on a separate mission, it employs the principles of mobile defense in the same man-



*Figure 57. In a mobile defense, the reconnaissance battalion may frequently be employed as a covering force beyond the outpost system of the higher command.*

ner as does a reinforced tank battalion (FM 17-33). Employment of the battalion under these conditions is discussed in paragraphs 155-163.

*d.* During the conduct of a mobile defense by the armored division, the reconnaissance battalion may also be given a reconnaissance mission to gain and maintain contact with an enemy force. This mission may cause the battalion to deploy to the front, flanks, or rear of the main defensive area. Conduct of reconnaissance missions is discussed in chapter 4.

*e.* Upon completion of a reconnaissance or covering force mission, the battalion may be assigned another such mission in a different sector or may be placed in division reserve.

## **155. THE BATTALION HOLDING A SECTOR**

Depending on its orders, plans of higher headquarters, the terrain, and the enemy situation, the battalion usually employs one of the following methods when acting as a part of a higher command's mobile defense:

*a.* Due to the normally wide frontage to be covered in the mobile defense, the battalion commander may frequently place all of the reconnaissance companies in the outpost system. In this case the higher headquarters holds another force as a mobile reserve.

*b.* If the assigned frontage does not require employment of all the companies in the outpost system, the battalion commander may hold a

small reserve. This reserve is used to strengthen any part of the outpost system which may be threatened. As in the above situation, a mobile counterattacking force is held in reserve by the higher commander.

c. Higher headquarters may assign a narrow sector to the battalion, instructing the battalion commander to furnish his own reserve. In this case the battalion commander must decide how much of his unit he must use to organize the outpost system and still have enough in reserve to provide him with a strong counterattacking force (fig. 58).

## **156. RECONNAISSANCE FOR MOBILE DEFENSE**

In mobile defense, the width of the area of responsibility assigned to the reconnaissance battalion can be expected to greatly exceed normal sustained defensive sector widths. The battalion commander makes as complete and detailed a reconnaissance of the area as the time and situation will permit. This should include a map, a ground, and if possible an aerial reconnaissance. From this reconnaissance the battalion commander determines the critical terrain features and the likely avenues of enemy approach. He makes plans to place the strong points in his outpost system on these terrain features and avenues of approach. The use of an Army aircraft materially assists the battalion commander in making his reconnaissance and later in the supervision and control of the companies.

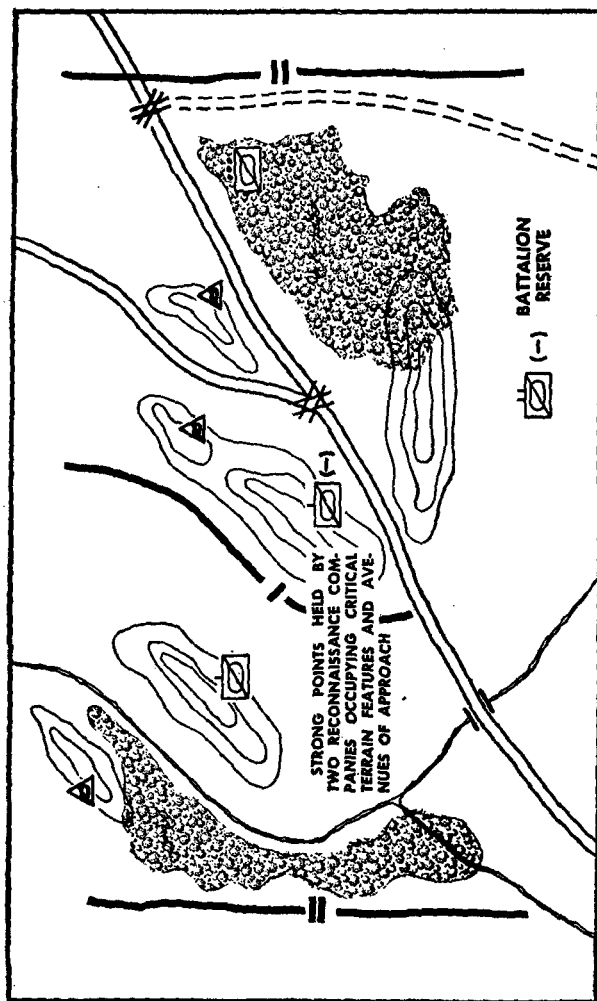


Figure 58. Organization of a narrow sector in the mobile defense.

## **157. DISPOSITION OF UNITS IN MOBILE DEFENSE**

Having completed his reconnaissance, the battalion commander decides how much of his unit will have to be employed in the outpost system. He then subdivides the battalion sector into company sectors. If the assigned frontage and the enemy situation permit, he constitutes a reserve. However, if the frontage is extensive he may have to assign sectors to each reconnaissance company and hold no battalion reserve, if this action is in accordance with the plan of the higher commander.

## **158. ORGANIZATION OF GROUND FOR MOBILE DEFENSE**

Within the outpost system, critical terrain features and avenues of approach — such as high ground, defiles, and bridges—are held by strong points of tanks and riflemen. More critical terrain features may be more strongly defended, while others are lightly held or may be covered only by observation. The size and strength of the strong points depend on the importance of the terrain and approaches that they dominate. They may vary from a portion of a reconnaissance platoon to a force of reinforced company strength. The outpost system is so organized that it can slow down, repel, or if possible destroy an enemy threat. However, elasticity in organization of the ground, provided by the selection and preparation of alternate positions, will permit temporary withdrawals or shifting of forces to prevent their capture or destruction by larger enemy forces



until such time as the position can be reinforced or a counterattack launched by the reserve of the higher headquarters. Strong points within the outpost system may or may not be mutually supporting by fire, depending on the frontage to be defended and the type of terrain. Mine fields and extensive barriers are utilized in accordance with the time available, the terrain, and orders from higher headquarters. However, obstacles should be so placed as not to interfere with the maneuver of the reserve element.

### **159. FIRE PLAN FOR MOBILE DEFENSE**

As soon as the battalion commander has selected the general area that the outpost system will occupy, he works out a fire-support plan. Fire support should include long-range fires which are usually controlled by combat command or division, close defensive fires to support the outpost system, and fires to support a counterattack. The plan includes detailed preplanned fires to cover the area surrounding the battalion and gives particular attention to enemy avenues of approach. Each preplanned fire is lettered, numbered, or otherwise designated, so it can be easily called for by any member of the battalion. The 81-mm mortars of the reconnaissance companies are integrated into the fire plan and may be operated in battery within the companies.

### **160. SECURITY IN MOBILE DEFENSE**

Security in the mobile defense is provided by the series of observation posts and strong points

which occupy the key terrain features and avenues of approach. During daylight hours, these strong points establish observation posts; during hours of darkness, they establish listening posts. The observation posts should be located on terrain which affords excellent observation of enemy activity. The listening posts are normally placed on or near the likely avenues of approach. Elements in the outpost system use the scout sections to patrol between the strong points. If a battalion reserve is constituted, the scout sections of this element may be used to patrol the interior of the position and establish battalion observation posts. Contact with adjacent units is established, and Army aircraft may be used to patrol the entire position during daylight hours. The battalion commander should attempt to gain and maintain enemy contact so as to be adequately informed of any hostile movement toward his sector.

## **161. CONDUCT OF THE MOBILE DEFENSE**

a. The observation posts or listening posts usually are the first ground elements to observe an enemy advance; however, Army aircraft may give the outpost system the first warning of an enemy attack. As soon as the enemy comes within range, he should immediately be brought under fire and kept under fire. A proper fire plan will bring down these long-range fires rapidly and effectively. When the enemy attack is launched, the strong point or points under attack make every effort to delay the enemy force, cause it to deploy, stop it, and if possible defeat it. If the enemy has attacked

in such strength that it appears likely that he will penetrate the outpost system, the battalion commander notifies the higher commander, who takes such counteraction as is necessary. When the battalion commander is able to hold out a small reserve, he commits this element to strengthen the strong points under attack. If the battalion has no reserve, elements of the battalion not in contact with the enemy may be moved to contain the enemy force until it is counterattacked by the reserve of the higher command.

b. If the reconnaissance battalion commander has been given a comparatively narrow sector and has been cautioned by the higher commander to hold a strong reserve, this reserve is kept intact and committed at the proper time and place as a counterattacking force to destroy the enemy threat. It should not be used in piecemeal strengthening of the strong points.

c. When the outpost system is attacked in such strength that to continue to fight would mean destruction, or if the enemy penetrates the defenses of some other sector, it may be necessary for the battalion outpost system to fall back to selected positions which have been previously reconnoitered. Here the defensive system is reorganized in the same manner as it was in the initial positions and again is ready to combat the enemy force. Giving up ground in this manner is not done indiscriminately by individual strong points or by companies, but is done as part of the higher commander's over-all plan. Inasmuch as the original outpost system is usually established well in front

of the final area to be defended, the only loss in such a maneuver is a certain amount of ground.

## **162. RESERVE IN MOBILE DEFENSE**

If the situation and mission allow the battalion commander to hold a reserve for the primary purpose of counterattacking, this element is the key to the battalion defensive plan. The reserve should be as large as possible, consistent with the situation, the frontage assigned the battalion, and the troops available. It should be located in a position from which it can rapidly move to any portion of the battalion area. This position should provide cover and concealment, good entrances and exits, room for dispersal, and good standing for the vehicles. An alternate position should be selected to be occupied in the event enemy bombing or shelling makes the primary position untenable.

## **163. COUNTERATTACK IN MOBILE DEFENSE**

a. When the reconnaissance battalion is able to hold out a strong reserve, detailed plans are prepared to cover employment of the reserve for counterattack against all possible types and directions of enemy attack. These plans include the scheme of maneuver, supporting fires, control measures, and necessary coordination. The plans are disseminated to subordinates as early as possible in order to provide time for study and further dissemination.

b. In the conduct of the counterattack, every effort is made to strike the enemy from the flanks

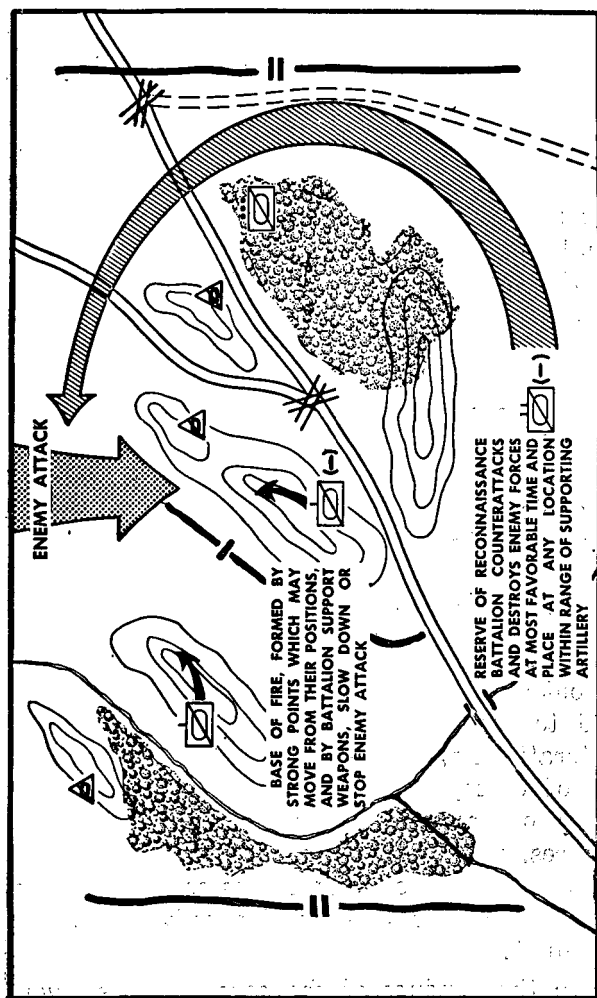


Figure 59. Counterattack by the reserve in the mobile defense.

or rear (fig. 59). Artillery and mortar fire is placed on the enemy force in an effort to destroy some elements, create confusion, and separate infantry from tanks when the enemy employs the two together. If the enemy succeeds in capturing a portion of the defensive position, a counterattack must be launched immediately. The enemy is usually disorganized for a short period after seizing an objective and is most vulnerable at this time. Any delay allows him to organize and reinforce the position. This counterattack is a limited-objective attack.

c. On occasion, the counterattack may be employed to strike the enemy while he is in his attack positions. Counterattacks of this nature often so disrupt the enemy that he is unable to launch a planned attack. This type of counterattack normally is not beyond the range of the supporting artillery.

## CHAPTER 8

### RETROGRADE MOVEMENTS

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#### Section I. GENERAL

#### 164. GENERAL

*a.* A retrograde movement is any movement of a command to the rear, or away from the enemy. It may be forced by the enemy or may be made voluntarily. It may be classified as a withdrawal from action, a retirement, or a delaying action. Each of these possesses characteristics of defensive action, each contemplates movement to the rear, and each is a variation of the same military operation.

*b.* Retrograde movements require a well-defined plan, executed with close control and supervision by all leaders. The presence of hostile armor and air increases the difficulties of executing these movements. A successful retrograde movement is usually covered by a mobile security force which pays particular attention to flank security to avoid envelopment. It is desirable to organize and occupy rear positions prior to beginning the retrograde movement. Free use of heavy fire power, and a carefully executed plan for demolitions and the use of smoke to delay the enemy, are essential.

## **165. PURPOSE OF RETROGRADE MOVEMENTS**

*a.* Retrograde movements are initiated for one or more of the following reasons:

- (1) To disengage from battle.
- (2) To avoid battle in a disadvantageous situation.
- (3) To draw the enemy into a situation unfavorable to him.
- (4) To gain time without fighting a decisive engagement.
- (5) To conform to the movement of other troops.
- (6) To permit the employment of a portion of the command elsewhere.

*b.* When operating as part of a larger force, the reconnaissance battalion makes retrograde movements only in conjunction with an over-all plan or on specific orders from higher authority.

## **166. TYPES OF RETROGRADE MOVEMENTS**

*a.* Retrograde movements may be classified as withdrawal from action, retirement, or delaying action.

*b.* Every retrograde movement usually starts with a withdrawal from action. A withdrawal is the movement, usually to the rear, by which a force disengages from the enemy. If the purpose of this movement is to refuse combat with the enemy under existing conditions, it becomes a retirement. If, on the other hand, the withdrawing



force plans to delay the enemy, by combat if necessary, the operation becomes a delaying action.

c. Within a large command, the main body of troops may be executing a retirement while its security elements are fighting a delaying action to cover that retirement.

## **167. EMPLOYMENT OF THE RECONNAISSANCE BATTALION IN RETROGRADE MOVEMENTS**

a. When the armored division engages in a retrograde movement, the reconnaissance battalion is frequently employed as a covering force for the division. The battalion employs normal delaying action tactics for this mission and may be reinforced by medium tanks, armored infantry, direct-support artillery, and armored engineers. When attached, the medium tanks and armored infantry should be formed into tank-infantry teams which are normally held in reserve as the battalion's mobile counterattack force. Direct-support artillery is employed in depth to support the battalion's delaying action. Armored engineers are employed to erect obstacles and also to assist in preparing the next delaying position. For details of employment of the battalion as a covering force, see paragraph 73.

b. Flank security is essential to a successful withdrawal in order to prevent the enemy from turning one or both flanks and thereby cutting off and destroying the withdrawing force. The reconnaissance battalion may often be employed

by the division commander as a flank covering force to secure one or both flanks of the division's main delaying force. In planning and executing a flank security mission during the division's withdrawal, the battalion commander uses the techniques described in paragraphs 75-78.

c. The reconnaissance battalion will seldom conduct a retirement but more often will be employed as part of a retirement made by the entire division (FM 100-5). When the armored division is engaged in a retirement the battalion is normally used to protect the flanks of the retiring column (pars. 75-78) or to protect the rear of the division by conducting a delaying action (pars. 174-184).

## **168. LEADERSHIP IN RETROGRADE MOVEMENTS**

Retrograde movements require constant control and supervision by commanders. Such movements often have a detrimental effect on the psychological outlook of the average soldier; to counteract this effect, the needs and purposes of the retrograde action should be thoroughly explained. Leaders must show great individual enthusiasm and initiative in the prompt execution of orders. Attention must be given to the care of the men, especially in the form of sufficient supplies. Commanders must remain in forward positions where, by their presence and prompt actions, they can do much to counteract the unfavorable morale conditions which may be present in a retrograde action.

## **169. SECURITY AND CONTROL IN RETROGRADE MOVEMENTS**

In all retrograde movements it can be assumed that the enemy will attempt to follow up and strike the withdrawing forces. This necessitates strong security detachments to guard the flanks and rear. The enemy will take over ground previously occupied by the withdrawing force; therefore it is important that nothing be left behind that will aid him. Control must be rigid to ensure coordination and orderliness during the operation. Every report must be verified and rumors must be prevented. No part of the battalion must be allowed to become disorganized. The presence of commanders in forward positions will contribute much to order and stability.

### **Section II. WITHDRAWAL**

#### **170. GENERAL**

A withdrawal is an operation designed to break contact with a hostile force by a planned, orderly movement to the rear. The purpose of a withdrawal is to preserve or regain freedom of action.

#### **171. ORDERS FOR A WITHDRAWAL**

The commander of a force executing a withdrawal, in his order for the operation, must designate—

- a.* The location of the new position.

- b. Provisions for preparation and occupation of the new position.
- c. Zones or routes of withdrawal.
- d. A covering force.
- e. Times of withdrawal of the main force and the covering forces and the time of occupation of the new position.
- f. Priority of withdrawal.

## **172. ASSIGNMENT OF ZONES AND ROUTES FOR WITHDRAWAL**

a. In a withdrawal, the reconnaissance battalion is usually assigned a zone in which to move. The boundaries of the zone extend back to include the new position or the new assembly area. If more than one unit of the higher command is using routes in the zone of the battalion, the higher headquarters may assign a route to the battalion.

b. In most cases the battalion commander assigns routes to his subordinate units. If enough routes are available, he may assign a separate one to each unit. These routes should extend as far to the rear as possible, in order to speed the withdrawal and to reduce the time length of each column. It may be necessary, to insure control or because of a limited road net, to reduce the number of routes used. However, multiple routes should always be used if available, and control points should be designated at which units using the routes form the march column. The commander must exercise strict control and super-

vision of the withdrawal, in order to maintain the schedule prescribed.

*c.* A reconnaissance of the designated or selected routes must be made to ensure that they are adequate and well marked.

### **173. STRENGTH AND CONDUCT OF THE COVERING FORCE FOR WITHDRAWAL**

*a.* During a withdrawal, the reconnaissance battalion is often employed as the covering force for the armored division or a combat command. The strength of the covering force depends primarily on—

- (1) The number of troops available.
- (2) The degree of enemy activity.
- (3) The amount of front to be covered.

*b.* When employed as the covering force, the battalion secures the withdrawal by fighting a delaying action (pars. 174–184).

## **Section III. DELAYING ACTION**

### **174. GENERAL**

*a.* A delaying action is a retrograde movement by which a force seeks to delay the advance of a superior enemy. The tactics employed are basically those of the defense, although the underlying principle of a delaying action is to gain time without fighting a decisive engagement.

*b.* A delaying action in one position for a considerable period of time requires the employment

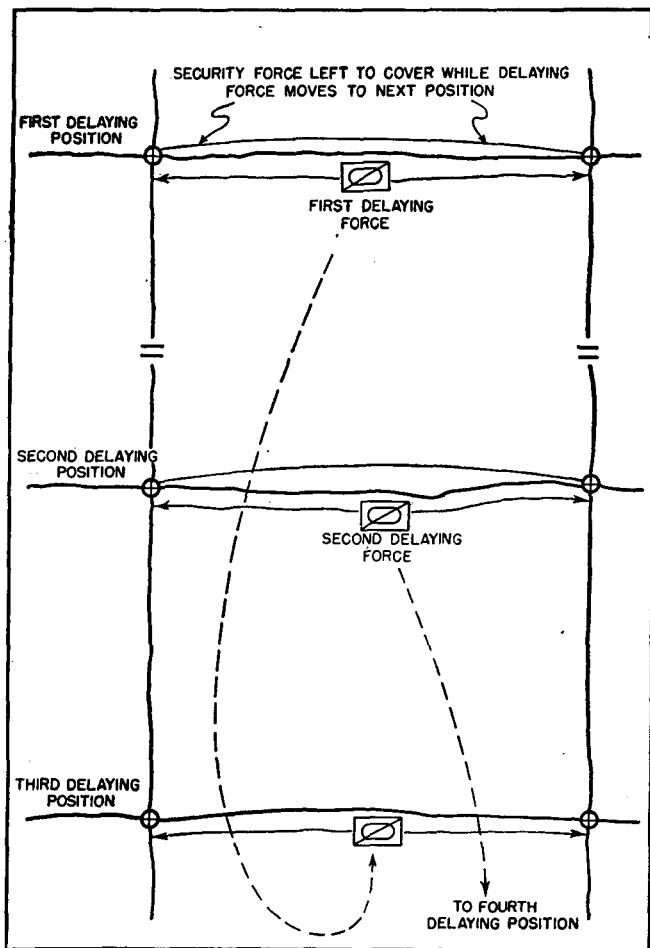
of the principles of mobile defense. A delaying action in successive positions is based on limited resistance on each of these positions; this type of action may be accomplished by defensive action, offensive action, or a combination of both. The defense on each position must force the enemy to deploy early and expend time in preparing his attack.

## **175. TYPES OF DELAYING POSITIONS**

A delaying action may be conducted by the use of either alternating delaying positions or successive delaying positions.

*a.* The use of alternating positions requires that the battalion be divided into two elements of approximately equal size (fig. 60). The first element occupies the first delaying position and conducts a delaying action while the second element organizes and occupies the next delaying position. The first element then withdraws on order through the second element to the third delaying position. This method has the advantage of allowing one element to obtain some rest and resupply while preparing the next delaying position. It has the disadvantage of requiring the battalion to split its force; therefore it is unable to concentrate the bulk of its fire power on each delaying position.

*b.* When the battalion is using successive delaying positions, the battalion reserve usually organizes each subsequent delaying position (fig. 61). When the delaying force withdraws, either it occupies the new position with the reserve, or all or a portion of it is constituted as the new



*Figure 60. Use of alternate delaying positions; the battalion is divided into two elements of equal strength.*

reserve. When there is no reserve initially, elements from the main delaying force may be sent back prior to the withdrawal to select positions and plan the organization of the next position. Delaying action in successive positions has the

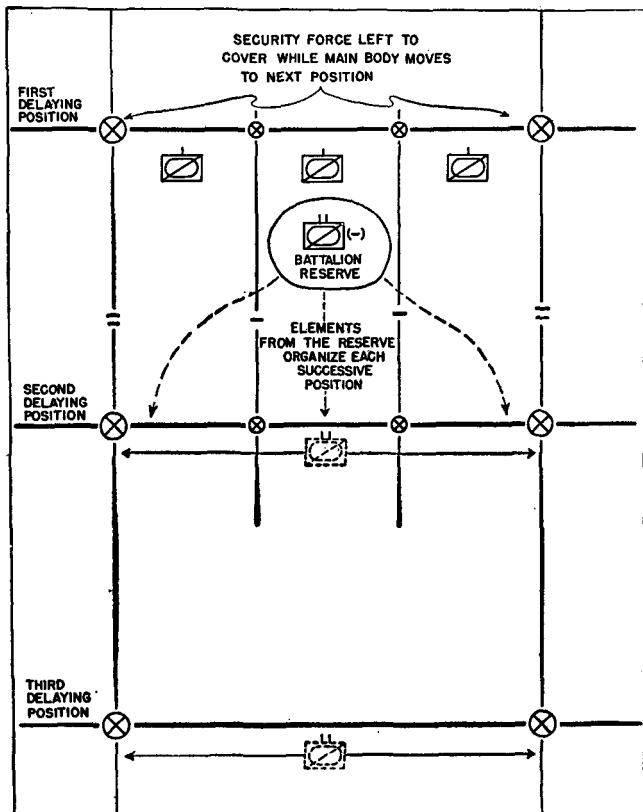


Figure 61. Use of successive delaying positions; most of the battalion is employed on each position.



advantage of allowing the battalion to concentrate the bulk of its force on each delaying position. It can be executed with a smaller force than can a delaying action using alternating positions; however, troops are in constant contact with the enemy and will get little or no rest.

## **176. RECONNAISSANCE AND PLANNING FOR DELAYING ACTION**

a. The force executing a delaying action has an advantage in that it can pick the ground on which to fight. It must make the best possible use of terrain (fig. 62). The most important factors in selecting a delaying position are observation and fields of fire at long ranges. Delaying positions should also be echeloned to the rear far enough to force the enemy to reorganize, renew his advance, and reconstitute his attack at every position. However, good pieces of terrain should be utilized for delaying positions regardless of their relative proximity. In selecting positions, there is no substitute for ground reconnaissance. The battalion commander should designate a staff officer to look over the ground from the enemy point of view. The most likely avenues of approach are located, and plans are made to place troops to control these avenues of approach. The reconnaissance to select successive delaying positions, in accordance with the over-all plan, must be conducted at the earliest opportunity.

b. Full use must be made of all natural obstacles, such as steep slopes, rivers, swamps, and thick woods. These are supplemented with all the

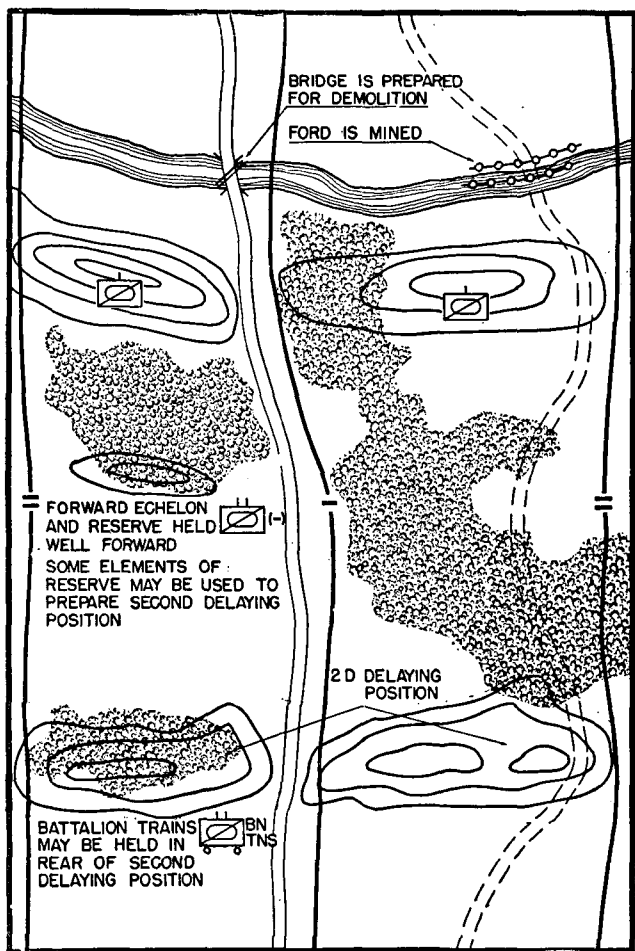


Figure 62. Organization of the ground in a delaying action.

artificial obstacles which can be constructed with the available man power, materials, and time. Too much reliance must not be placed in these obstacles, because no ground is impassable to a well-trained, determined, and aggressive enemy. The enemy may attempt to gain surprise by attacking over ground considered impassable. All obstacles should be covered with fire.

c. The battalion commander must select routes of withdrawal from successive delaying positions. Whenever possible these should be concealed routes so that movement by daylight will be screened from enemy observation. Unless necessary, main highways should not be used, because they will be targets for enemy artillery fire and strafing. Time permitting, subordinate commanders should reconnoiter the routes selected for withdrawal. The battalion commander's reconnaissance should include selection of positions from which the security force will cover the withdrawal of the main delaying force.

## **177. ORGANIZATION OF THE GROUND FOR DELAYING ACTION**

a. The battalion usually delays on an extended front. Delay requires less depth of position, so more frontage can be assigned. The battalion sector is divided into sectors of responsibility, which are assigned to the companies. The width of the company sectors depends on the terrain and road net, the hostile threat, and the width of the battalion sector. The battalion commander retains as

large a reserve as possible, consistent with his mission and the situation.

b. The companies organize strong points of tanks and riflemen, supported by the platoon mortars, on the critical terrain features and avenues of approach. These strong points are connected by patrols and observation. Boundaries and limiting points between companies should be so assigned that terrain features which control fire and observation into a company's sector are assigned to that company only. Defense of each definite avenue of approach should be assigned to only one company. Boundaries should extend forward of the position to the range of the weapons employed or to the limit of observation, whichever is greater. Command posts and supply, maintenance, and medical installations should be located farther to the rear than when the battalion is on the offense, to insure continuous operation and support during the critical period of the withdrawal. If these installations are located forward of the next delaying position, they should displace to rear positions as soon as a withdrawal can be foreseen. This displacement should be made during a period of little activity. The command group must remain forward where the battalion commander can control and influence the action.

## **178. FIRE PLAN FOR DELAYING ACTION**

The fire plan of the reconnaissance battalion in a delaying action should cover the planned fires at long ranges, close-in fires, and the fires to cover plans for possible counterattack and withdrawal.

The battalion commander should request long-range artillery to fire on the enemy at maximum ranges. This will cause the enemy to maneuver and deploy, thereby slowing down his advance. The close-in fire plan must cover all critical terrain features and avenues of approach, from direct-fire ranges to the maximum range of the light artillery. The battalion commander should work out the fire plan with the artillery liaison officer and disseminate this plan to all company commanders. Tanks in hull-defilade positions cover the most likely avenues of hostile mechanized approach. Machine-gun fires are interlocking whenever possible. If necessary, fields of fire are cleared to allow these weapons to deliver effective fire at maximum ranges. The 81-mm mortars cover areas which cannot be covered by flat-trajectory weapons, particularly positions which might be used as attack positions by the enemy.

## **179. SECURITY IN DELAYING ACTION**

*a.* In a delaying action, the battalion commander must make a special effort to insure that his security is adequate, especially on his flanks. He must prevent the enemy from turning his flanks or surprising him in position. If this happens, the battalion is unable to utilize its long-range fires and may be forced to a decisive action, which should be avoided except as a last resort to accomplish the mission. Both flanks must be adequately secured, and liaison must be established with adjacent units. During the withdrawal to successive positions, each commander is respon-

sible for the protection of his own flanks and rear.

b. Continuous reconnaissance by both ground agencies and Army aircraft is the best source of security. Security may also be provided by long-range patrols operating to the front of the battalion. Observation posts and listening posts give an early warning of enemy approach. Army aircraft can assist in securing the delaying position by extending observation to the front and flanks.

## **180. CONDUCT OF THE DELAYING ACTION**

a. Delaying positions should be continuously improved as long as they are occupied. Mines, obstacles, and warning devices are installed within the time available, and the battalion commander should request the attachment of engineers to assist in this work. The withdrawal to the next position is made under the cover of darkness if possible and must be closely controlled and coordinated by the battalion commander. Every effort is made to deceive the enemy as to our intentions and in particular to conceal the preparations for the withdrawal to the next position. Withdrawals during daylight hours may be by small groups; this may prevent the enemy from ascertaining that a withdrawal is in progress.

b. When the armored division is conducting a delaying action, the reconnaissance battalion may be employed as a covering force in front of the division's initial delaying position. When given this mission, the battalion commander may utilize either or both of the two types of delaying

positions discussed in paragraph 175. When using either of these two methods, the battalion commander must form a portion of the battalion as a security force to remain in contact with the enemy and protect the withdrawal of the main body of the battalion. This security force may consist of an element from each front-line company in contact with the enemy, left in place; or it may consist of all or a part of the battalion reserve. The security force, whether composed of elements of front-line companies or elements of the battalion reserve, should be under the command of one person. This force has the mission of holding off the enemy until the main body of the battalion has reached the new position. The security force may be required to conduct a counterattack in order to allow the main body to disengage from the enemy. In this withdrawal, the security force fights a rear-guard action back to the new position, utilizing every favorable piece of terrain. If the battalion reserve is employed as the security force, it normally is again placed in reserve as it passes through the next delaying position.

c. The reconnaissance battalion may also be used to protect the withdrawal of the division's delaying force to the next delaying position. When given this mission, the entire battalion may initially be held as the reserve of the delaying force. As the withdrawal to the second delaying position is made, the battalion is ordered to take over the positions on the initial delaying position and secure the withdrawal of the delaying force. To accomplish this maneuver, it may frequently be

necessary for the battalion to launch a counter-attack in order that the main delaying force can successfully break contact and withdraw to the next delaying position. This requires thorough preplanning and coordination between the reconnaissance battalion commander and the units which make up the main delaying force. After taking over the initial delaying position, the battalion fights a rear-guard action back to the second delaying position. In executing the rear-guard action, the battalion commander must take advantage of surprise, favorable terrain, obstacles, fire, maneuver, and cover. He must personally supervise the maneuver and actions of the reconnaissance companies to insure that the enemy is held in front of the second delaying position until the main delaying force is organized and ready for combat. On passing through the second delaying position, the battalion normally is again placed in reserve by the higher commander.

## **181. COUNTERATTACK IN DELAYING ACTION**

When a counterattack is required to destroy an enemy penetration or to break contact, it should be delivered by the battalion reserve against a limited objective (fig. 63). The reserve is held intact, and piecemeal commitment should be avoided. Counterattack plans covering all logical enemy actions are thoroughly preplanned and are disseminated to all concerned. The reserve occupies a position from which it can rapidly move to any part of the delaying position. Every effort is



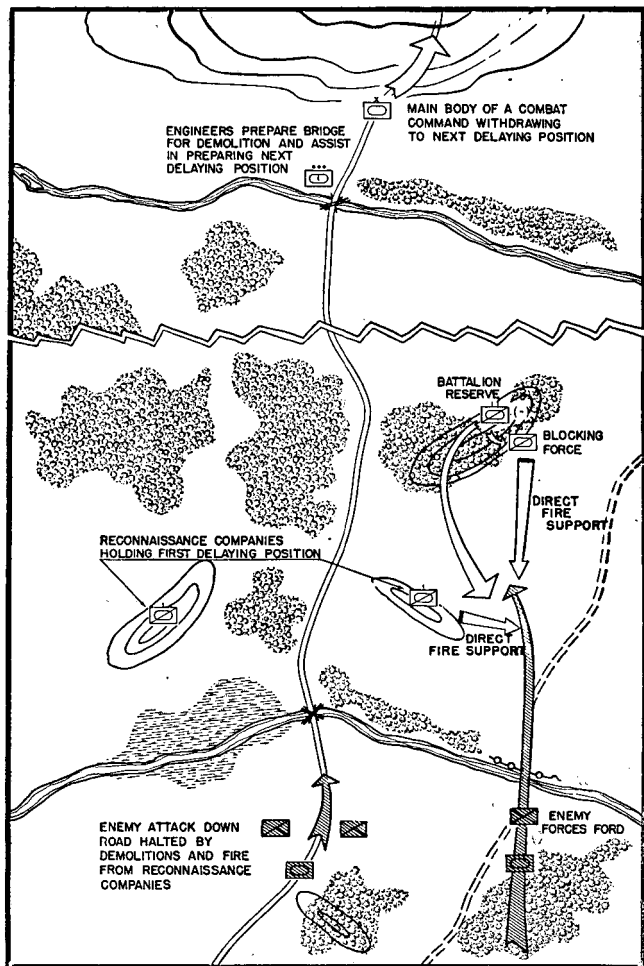


Figure 63. Counterattack by the battalion reserve in a delaying action.

made to obtain surprise, and the counterattack is directed against the enemy flanks and rear. In event of an enemy penetration, the troops on the delaying position attempt to eject the enemy, supported by all available massed fires. If this fails, the battalion commander must decide whether to counterattack with the reserve, continue to fight on the position, or withdraw, whichever is indicated by his mission.

## **182. COORDINATION AND CONTROL IN DELAYING ACTION**

Detailed coordination is necessary to prevent confusion. The battalion commander assigns sectors to the companies. Limiting points are designated for the purpose of coordination within the position and to coordinate flank protection. This is necessary to preserve the integrity of the position and to prevent exposure of the flanks of adjacent units to the enemy. Only the battalion commander, acting under orders, is authorized to order a withdrawal. The battalion commander controls the action on the delaying position by his presence and orders and by radio communication with the remainder of his unit. During the withdrawal to the next delaying position, the battalion commander personally supervises the actions of the security force that is left to protect the withdrawal of the main body.

## **183. ORDER OF WITHDRAWAL**

The battalion trains are usually the first element of the battalion to withdraw. The movement

of the battalion trains should take place as soon as the withdrawal to the next delaying position can be foreseen. This movement should be concealed from enemy observation. It should be made during darkness if possible; if it is necessary for the trains to move in daylight hours, they should move by infiltration. The next element to withdraw is the reserve, followed by the forward echelon and the main body. The last elements to withdraw are the command group and the security force which is left to protect the withdrawal of the main body. It may be necessary for the battalion reserve to launch a counterattack to assist the main body in breaking contact. In this event the reserve becomes the security force and with the command group is the last element to withdraw.

#### **184. TIME OF WITHDRAWAL**

The time of withdrawal is given by the battalion commander, acting under orders from higher authority. The time should be varied so that a standard pattern is not set. If possible the withdrawal is made during darkness or periods of low visibility. Withdrawals at night require careful planning and marking of routes so that confusion does not result.

## **CHAPTER 9**

### **SPECIAL OPERATIONS**

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#### **Section I. GENERAL**

##### **185. GENERAL**

The general principles of employment for the reconnaissance battalion are basic and remain the same under virtually all conditions. However, due to the enemy situation, the terrain, the weather, and numerous other variables, the techniques of applying these principles may vary. In special operations, basic principles are applied to specific situations and various techniques are employed to accomplish the mission. The battalion commander must realize that special operations require special techniques, and he should be alert for any opportunity to utilize the battalion's characteristics to accomplish his mission.

#### **Section II. ATTACK OF A RIVER LINE**

##### **186. GENERAL**

*a.* During the course of normal security operations, the reconnaissance battalion is often confronted with obstacles in the form of rivers and streams. The fordable streams present no serious problem but the larger, unfordable rivers do. As

a rule the reconnaissance battalion does not engage in a major river crossing as a separate unit; in this type of crossing the battalion is normally given a security role in the plan of attack of a higher headquarters. This plan of attack may place the battalion along the river line as a security force while the higher command assembles for an assault crossing. In conjunction with this mission, the battalion also reconnoiters the river line for existing crossings or fords. After a crossing has been made and a bridgehead established, the battalion may be given the mission of forming a security system around all or a portion of the bridgehead or of reconnoitering to the flanks. The higher commander might also use the reconnaissance battalion to deceive the enemy as to the location of the main crossing. In this event the battalion makes a feint at crossing the river at some logical crossing site.

*b.* While engaging in a reconnaissance or security mission, the battalion may frequently attack across the smaller fordable or unfordable streams or rivers. The reconnaissance battalion normally launches an attack of a river line by either of two general methods—

- (1) An attack on a broad front, using multiple crossings to seize objectives which develop the enemy situation and expedite a security or reconnaissance mission.
- (2) An attack on a narrow front over only one or two crossings in an attempt to outflank the enemy's main position and penetrate to his rear areas.

## 187. TECHNIQUE OF RIVER CROSSING

When the reconnaissance battalion launches its own crossing of an unfordable river, the battalion commander must first initiate a reconnaissance of the river line to determine the point or points for crossing. He is normally assisted in this task by the attachment of engineer reconnaissance parties and may be assisted in the actual crossing by the attachment of engineer elements with assault boats and rafts. Because of the limited number of riflemen available for an assault crossing, every effort should be made to effect surprise and thereby to put the assault elements across without the aid of supporting fires. The scout section personnel of the various reconnaissance companies may be dismounted to give additional rifle strength to the assault echelon. Artillery, if available, the 81-mm mortars, and the light tank sections of the companies, should be near the crossing site to give the assaulting elements close fire support during the crossing and while they are establishing themselves on the far side of the river. As early as possible the battalion commander should attempt to establish his lines of communication over a bridge, either in his own crossing site or as close to it as possible. If this is not possible, engineer rafts are employed to cross tanks and armored personnel carriers. To facilitate the main crossing it may be of advantage to have a portion of the battalion make a feint crossing at one or more points in order to mislead the enemy.

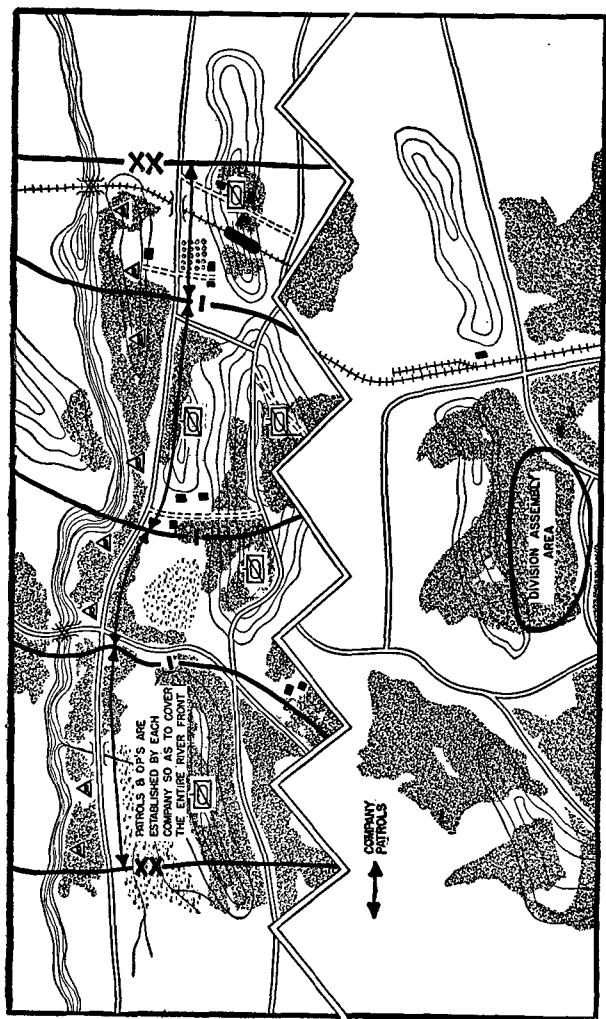
## Section III. DEFENSE OF A RIVER LINE

### 188. GENERAL

*a.* When the armored division is engaged in the defense of a river line, the division commander may employ the reconnaissance battalion to secure the near bank while all or a portion of the division is held in a central location ready to counterattack attempted crossings in force (fig. 64). The battalion must cover all of the assigned river line by observation and must place strong points at the most logical crossing sites or fords. This is essentially a covering force mission as discussed in chapter 3.

*b.* The battalion may also be used as a covering force on the far bank while the division prepares the near bank for defense. This is an advance covering force mission and is discussed in paragraph 73. The battalion commander must thoroughly coordinate his final withdrawal across the river to the near bank. This coordination should include direct and indirect fire support from the elements of the division holding the near bank and should also insure that all elements of the battalion are withdrawn prior to demolition of the crossing sites.

*c.* During the course of normal security or reconnaissance operations, the battalion might, for various reasons, be ordered to halt the advance and establish a defensive position on a river line. This might occur while the battalion is on a separate mission or is being employed on a flank security mission.



*Figure 64. The reconnaissance battalion securing the near bank of a river line.*



## 189. BATTALION CONDUCT OF A RIVER LINE DEFENSE

When the battalion is acting alone or is given a portion of the higher command's defensive sector, the battalion commander should—

*a.* Establish reconnaissance patrols along both banks, using only a small part of his force for this mission. If possible, these elements delay the enemy's approach to the far bank.

*b.* Organize strong points to cover the most likely sites for crossings and hold the majority of the battalion well behind the river as a counterattacking force. This force strikes the enemy when he is astride the river or soon after he has partially crossed. This type of defense uses the river to divide the enemy force, with the intent of defeating him while so divided. Orders from higher headquarters may indicate that the enemy advance is to be stopped at the far bank. In this case, the majority of the battalion is disposed on or near the river in a sustained defense with particular attention being given the likely crossing sites. Because of the relatively small number of organic riflemen, the former type of defense is considered most appropriate for use by the battalion.

*c.* Use attached engineer units to prepare fords and bridges for destruction, and to demolish those not being used by the elements operating on the far bank. Routes of approach to attack positions are prepared, mine fields are laid, and all possible

obstacles are constructed. Fire rafts, floating mines, and like materials are prepared for use against enemy assault bridges. If engineers are not available, this work must be done by battalion personnel.

*d.* Insure that all boats, ferries, and other craft along both banks of the river within the assigned sector, except those needed for local security, are located and destroyed. All buildings on the far bank which might furnish the enemy with material for bridge construction are burned or otherwise destroyed.

*e.* Cover with security detachments all bridges and fords that have not been destroyed. When the elements of the battalion on the far bank have withdrawn, these crossings are demolished. A responsible officer is stationed at each crossing. He constantly checks to make sure the prepared demolition charges are ready, and detonates them if the crossing is in danger of capture. This duty is one of great responsibility. The officer gives friendly security elements every chance to escape, but cannot allow a pursuing enemy to enter the defensive position. He acts upon his own initiative in meeting the emergency and does not wait for instructions from higher authority.

*f.* Use the elements of the battalion driven back across the river to reinforce and extend the local patrols on the near bank. Units that have been cut off by a rapidly advancing enemy may be withdrawn by boat. They should destroy any vehicles they cannot evacuate.

## **Section IV. COMBAT IN TOWNS**

### **190. GENERAL**

Towns normally offer good defensive positions; therefore the reconnaissance battalion avoids built-up areas if at all practicable. However, it is impossible to avoid all villages and towns and still establish an axis of supply. When possible, the advance to the built-up area is a mounted movement. This maneuver should be made boldly and aggressively with all available weapons firing. Smoke concentrations from the 81-mm mortars may be used to screen the initial advance into the town. Tanks normally lead, followed closely by rifle squads mounted in their personnel carriers. Once the built-up area has been reached, the rifle squads dismount and work closely with the tanks. The action in the built-up area is usually performed by a number of small, independent teams, each consisting of one or two tanks and all or a portion of a rifle squad. Each element of the team provides direct-fire support to the other. Indiscriminate use of incendiaries and tracer ammunition causes fires which may interfere with the action of friendly troops. High-trajectory weapons must be used with caution, since combat in towns is characterized by close contact action, poor communication, and difficult liaison and control. For further details, see FM 31-50.

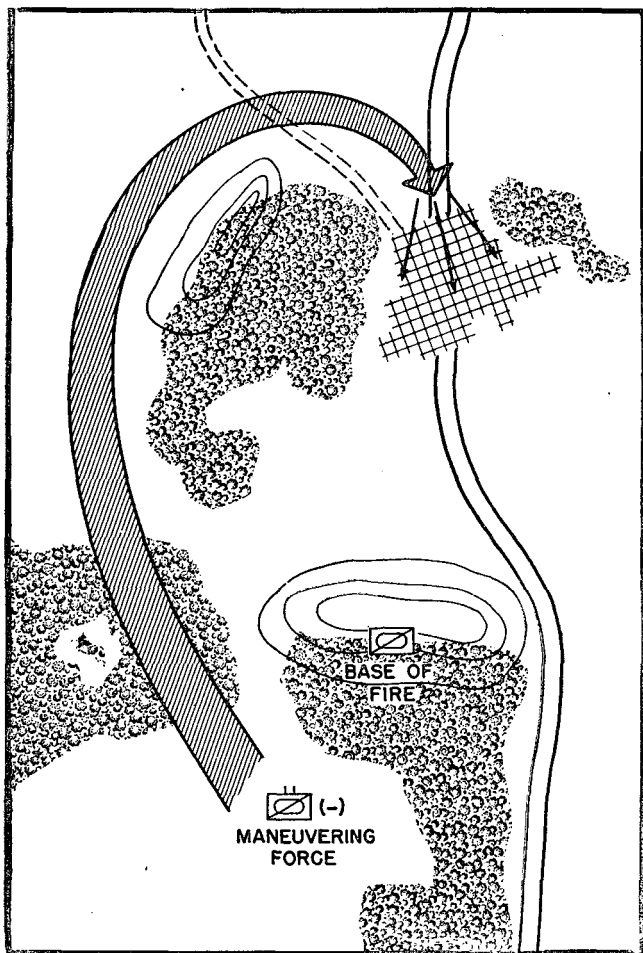
### **191. FRONTAL ATTACK OF A TOWN**

If reconnaissance has determined that a town is only lightly held, the battalion may gain sur-

prise by making a rapid approach and entrance with all automatic weapons and tank guns firing at all suspicious positions. The direct fire is begun as soon as the column comes within sight or range of the town and is continuous as the column moves into the built-up area and past the buildings. This method of attack is normally employed during the exploitation or pursuit phase of combat when it is known that the enemy forces are disorganized and unable to establish effective defensive measures. It has the advantages of boldness and surprise but should be used with caution when it is known that the enemy has the facilities and necessary time to organize the defense of a town.

## **192. ATTACK OF THE FLANK OR REAR OF A TOWN**

If reconnaissance has determined that the enemy has organized a town for defense, the battalion should execute a covered maneuver to enter the town from the flank or rear (fig. 65). The element conducting the flanking movement is considered as the battalion's maneuvering force and has the mission of preventing the escape of the enemy, preventing reinforcements from entering the town, providing direct-fire support for the assaulting troops, and protecting the assaulting troops from counterattack. The assault into the built-up area is initiated by elements from the maneuvering force and is characterized by a rapid, violent attack on a narrow front. As in the frontal attack, all automatic weapons and tank guns are fired during the approach and after entering the town. Initially every effort is made to



*Figure 65. Attack of a small town from the flank and rear*

avoid streets and roads by going through gardens and over lawns on entering the built-up area. Such action often bypasses enemy antitank weapons and mines covering and blocking the main entrances to the town. After an entrance has been forced, the action continues in the manner described in paragraph 190. Those elements of the battalion not employed in the maneuvering force should be employed as a base of fire; the base of fire provides both direct and indirect fire support to the maneuvering force and may contain the majority of the 81-mm mortars of the battalion. The base of fire should be prepared to displace forward rapidly after an entry into the town has been secured by the maneuvering force.

## **Section V. NIGHT OPERATIONS**

### **193. GENERAL**

*a.* Night operations are characterized by an increase in importance of preplanned fires, liaison, and close fighting; a decrease in effectiveness of aimed fire; and difficulty in maintaining direction. Morale of the troops involved in a night operation is very important and may best be strengthened by insuring that all members of the unit involved have a thorough understanding of the mission and the plan. Although movement of both vehicles and personnel is difficult at night, the surprise element is greatly increased. By employing armored vehicles at night, the attacker makes full use of the psychological advantage he possesses in night operations.

b. When the reconnaissance battalion is employed on a security or defensive mission at night, the principles of employment are the same as those used in daytime operations except as affected by the above characteristics of night operations.

c. Due to the noise of tracked vehicles, a reconnaissance mission at night is primarily accomplished by dismounted action (FM 21-75). Reconnaissance at night by dismounted patrols is employed in order to—

- (1) Develop the enemy situation.
- (2) Capture prisoners.
- (3) Determine routes of approach through the enemy lines.
- (4) Execute limited demolition in the enemy front lines.

d. While engaging in normal reconnaissance and security missions, or upon orders from higher headquarters, it may be necessary for the reconnaissance battalion to launch a coordinated night attack. This type of attack is usually made to capture an important terrain feature for future operations, to avoid heavy casualties against a stubbornly defended locality, or to exploit a success.

## **194. NIGHT ATTACK**

a. Because of the difficulties of maneuver at night, the planning and preparation for a night

attack must be even more thorough than for a coordinated daylight attack. It is desirable to select an observation post from which the line of departure, the objective, and the intervening terrain can be seen; if possible, all personnel who are to participate in the attack should view the area from this point. As many commanders as time permits should use Army aircraft to make a personal reconnaissance of the attack area.

b. The battalion commander should confine the attack to a limited objective and normally culminates the attack with a frontal assault rather than a wide enveloping maneuver, which may be difficult to control. The elements of the plan are the same as for a daylight attack. The plan should be simple and detailed. Boundaries and objectives should be as exact and definite as possible to assist in maintaining direction of the attack.

c. Artillery support is desirable for a night attack, and the battalion commander should request sufficient artillery fires for the attack. The battalion commander may consolidate the 81-mm mortars of the various reconnaissance companies to add to the fire support.

d. Higher headquarters may prescribe the time for the attack, or the battalion commander may set this time. The time of attack depends on the mission. If the objective is to be organized and held, the attack is normally launched in the early hours of darkness. If the attack is to precede a main attack at daybreak, it is usually initiated late at night. These times of attack are merely guides;



to insure maximum surprise, the time of a night attack should be varied.

*e.* The battalion should be divided into a base of fire (support), a maneuvering force, and if possible a reserve. The maneuvering force should be employed under one commander. The base of fire should have fixed, preplanned fires for both direct-fire and indirect-fire weapons, with a definite time or signal for lifting or shifting their fire. The reserve is usually held in rear of the line of departure until the maneuvering force has seized the objective. It is then moved forward to aid in the reorganization for defense, or continuation of the attack. The battalion commander should place himself in the best position to facilitate over-all control of the attack.

*f.* The order should give detailed instructions to all elements of the battalion participating in the attack and should include time of attack, formation, rate of advance, methods of marking routes or zone of advance, methods of identification, and detailed instructions to the battalion reserve. It should also delegate responsibility for organization of the objective.

*g.* Radio is the normal means of communication in the night attack, but visual signals are also used to insure control and coordination. To assist in identification, luminous markers may be used on both vehicles and individuals. Flares and other illuminating devices are useful for both signaling and illumination. All visual signals must be committed to memory and therefore should be relatively simple.

*h.* The night attack is usually the most difficult of all forms of offensive action to control. Issuance of a clear, concise order which is thoroughly understood by all members of the command greatly assists the battalion commander in maintaining control. Precise boundaries and axes of advance also assist in maintaining control. By use of white phosphorus shells, the 81-mm mortars can mark the objective and boundaries. Illuminating shells, if available, may be used to keep the objective in a cone of light. This partially blinds the enemy on the objective and assists the assaulting troops in maintaining direction. Changes in direction should be avoided, and if foreseen should be based on some prominent terrain feature (fig. 49). Other means which assist the battalion commander are the use of an azimuth for direction, use of intermediate objectives, and closer formations.

*i.* One of the most important advantages of a night attack is surprise. To obtain surprise, the exact hour of the attack is kept secret until its disclosure is necessary. All preparations for the attack are made in concealed rear areas, in order not to disclose to the enemy the locations or intentions of the attacking force. Once the attack is launched, secrecy is lost and surprise must come from the speed and violence of the execution. To maintain secrecy as long as possible, a night attack is rarely preceded by an artillery preparation.

*j.* The maneuvering force is normally composed of one or more reconnaissance companies. The rifle strength of this force can be augmented by dismounting personnel from the various scout

sections. There must be very close coordination between the tank and rifle elements. The riflemen normally are dismounted and either follow the tanks or advance alongside the tanks. Riflemen must be particularly alert for enemy troops armed with hand-carried antitank weapons. The tank element fires at automatic weapons and other obstacles interfering with the progress of the infantry. The final move onto the objective must be made with all possible speed. Supporting fires are lifted or changed on signals from the commander of the maneuvering force. Organization of the objective is preplanned and begins immediately after arrival on the objective.

## **Section VI. ACTION ON ENCOUNTERING MINE FIELDS**

### **195. GENERAL**

Mine fields may be small, as in a road block, or they may be extensive and cover broad fronts. In either case, they are usually placed as obstacles to slow the progress of advancing troops. A mine field may be defended or undefended; when a defended mine field is encountered, the defenders must first be destroyed or neutralized. As soon as the battalion encounters a mine field, an immediate reconnaissance should be made to discover a bypass. If a bypass cannot be found, a lane must be cleared and marked through the field. Mines are normally removed by personnel of the battalion who have been trained in handling and removing mines. On occasion, armored engineers may

be attached to perform the actual removal of the mines. See FM 5-31 for additional information.

## **196. UNDEFENDED MINE FIELDS**

When an undefended mine field is encountered, it should be outposted on the far side by dismounted troops. Qualified personnel remove the mines, covered by tanks in direct-fire positions. Only sufficient mines are removed to provide a safe path for the vehicles of the battalion to pass through. The lane is marked with white engineer tape, and the troops continue their advance. The location of the mine field, its size, and the actions taken to clear a path should immediately be reported to higher headquarters.

## **197. DEFENDED MINE FIELDS**

*a.* If the mine field is small and being employed by the enemy as a block, a dismounted attack may be launched to outflank the mines and attack the enemy defenders from the flank. The tanks and mortars furnish fire support for this maneuver. As soon as the enemy is neutralized, a path is cleared and a lane marked through the mine field.

*b.* To breach a broad, defended mine field, the battalion commander must first decide where the penetration is to be made. It should be made where our troops have as much cover as possible and where the battalion will be in the best position to continue the action after passing through the field. Smoke or darkness is usually necessary for such an operation. Dismounted elements must first establish a bridgehead beyond the field, sup-

ported by all direct and indirect fires available. Qualified personnel can then move forward and clear a lane through the field. Mechanical means may be used to open a path but must be obtained from a higher headquarters.

## **Section VII. ATTACK OF A DEFILE**

### **198. GENERAL**

Any terrain which canalizes an advance is a defile for the force concerned. When the reconnaissance battalion encounters a defile, immediate detailed reconnaissance should be initiated. This action should be standing operating procedure. The reconnaissance patrols should make an effort to determine the strength and dispositions of the enemy force holding the defile, and the location of obstacles—both man-made and natural. The use of dismounted elements in this type of reconnaissance is frequent; however, reconnaissance by fire (fig. 35) and observation from Army aircraft should not be overlooked. A detailed study of available maps and air photos also assists the battalion commander in determining the topography of the defile. When the defile is cut by more than one road, consideration should be given to avoiding the main road, since it is likely to be more strongly defended.

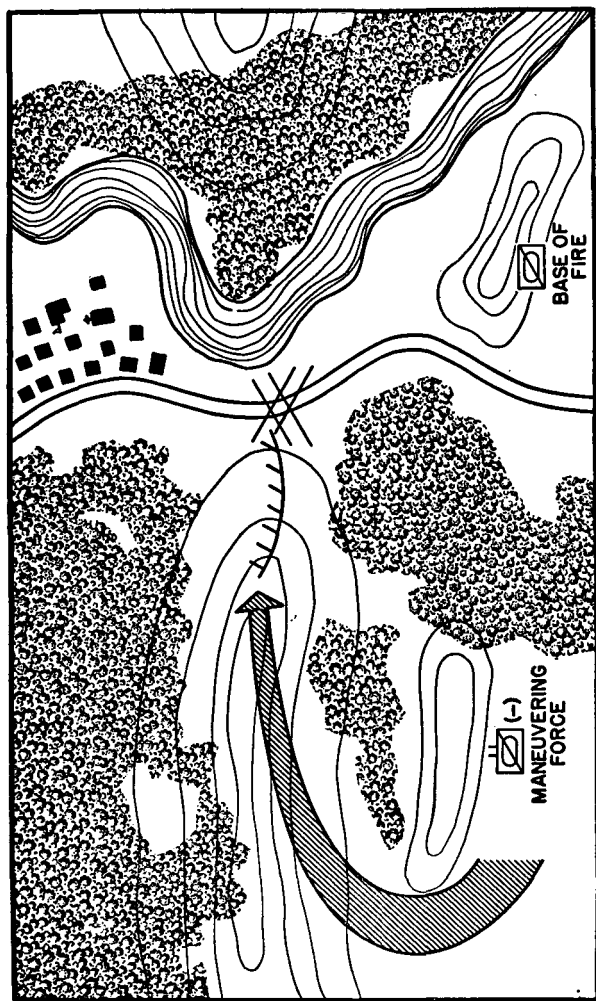
### **199. LIGHTLY HELD DEFILE**

If the reconnaissance determines that the defile is undefended or only lightly held, the battalion

may proceed rapidly through the obstacle in column. Every effort is made to pass the unit through the defile as quickly as possible in order that the minimum of time will be spent in the restricted confines of the defile. This method is used only when reconnaissance definitely indicates that the enemy has not constructed man-made obstacles on the route of advance through the defile and has not emplaced antitank guns within the defile. It can be used to penetrate a defile held only by dismounted enemy elements; however, the leading elements of the battalion must take measures to protect themselves against hand-carried antitank weapons. Boldness on the part of all personnel in the leading elements, and unrestricted use of all available fire power, decreases the effectiveness of enemy dismounted elements.

## **200. DEFENDED DEFILE**

a. The enemy normally defends a defile from one or all of three positions: in front of the defile, within it, or at the exit. If the flanks of the defile are assailable, the battalion commander should direct his main attack against one or both flanks (fig. 66). The elements conducting this attack are considered as the battalion maneuvering force and are supported by a base of fire. Conduct of this type of attack is discussed in chapter 5. Normally the flanks of a defile are unassailable; they should then be masked with smoke or fire and a penetration made. The most critical time for the attacker is while he is within the defile. During



*Figure 66. Attack of a defended defile. The maneuvering force assaults the enemy position from the flank.*

this period, his actions are restricted and he is more vulnerable to enemy artillery, air, and mortars. Once in the defile, it is imperative that the battalion commander use all available means to overcome resistance and push the attack to the limit.

b. Light tanks normally lead the movement into the defile; they are followed closely by rifle squads initially mounted in their armored personnel carriers. This maneuvering force attempts to neutralize the enemy by use of all the tank fire that can be brought to bear and by maneuvering the now dismounted rifle squads to outflank or surround individual enemy emplacements. The 81-mm mortars are especially effective in this type of operation and should be well forward in order to rapidly concentrate their fire on targets of opportunity. It is desirable for the leading elements of the maneuvering force to include personnel who are trained in the removal of mines and demolitions.

c. The base of fire for the attack is formed from all uncommitted elements of the battalion and should render support by employing direct and indirect fire. This force should remain mobile and be prepared to advance by echelon; thus the fire support will be continuous and uninterrupted. If necessary, the base of fire may also be used by the battalion commander as a battalion reserve.



## **Section VIII. OPERATIONS IN MOUNTAINS**

### **201. GENERAL**

Mountains greatly restrict the cross-country mobility of the reconnaissance battalion. However, it will be found that the battalion can frequently be employed to advantage in the valleys and along the roads in mountainous terrain, executing its normal missions (FM 70-10). In areas where the armored division can be effectively employed, the battalion may be assigned security missions. The battalion commander must realize that combat in mountainous terrain will find the battalion operating in defiles a large part of the time. He must frequently use dismounted patrols to check the high ground to each flank. Dismounted action is used much more frequently than during operations in normal terrain.

## **Section IX. OPERATIONS IN WOODS**

### **202. GENERAL**

*a.* Operations through a heavily wooded area normally require a preponderance of foot troops. Because of the limited rifle strength of the battalion, it may be necessary to dismount personnel from scout sections to bolster the dismounted element. Tank elements should accompany the dismounted troops through the woods if at all possible. When this is not feasible, the tanks should provide direct-fire support from the edge of the woods for as long as possible. Tree bursts make

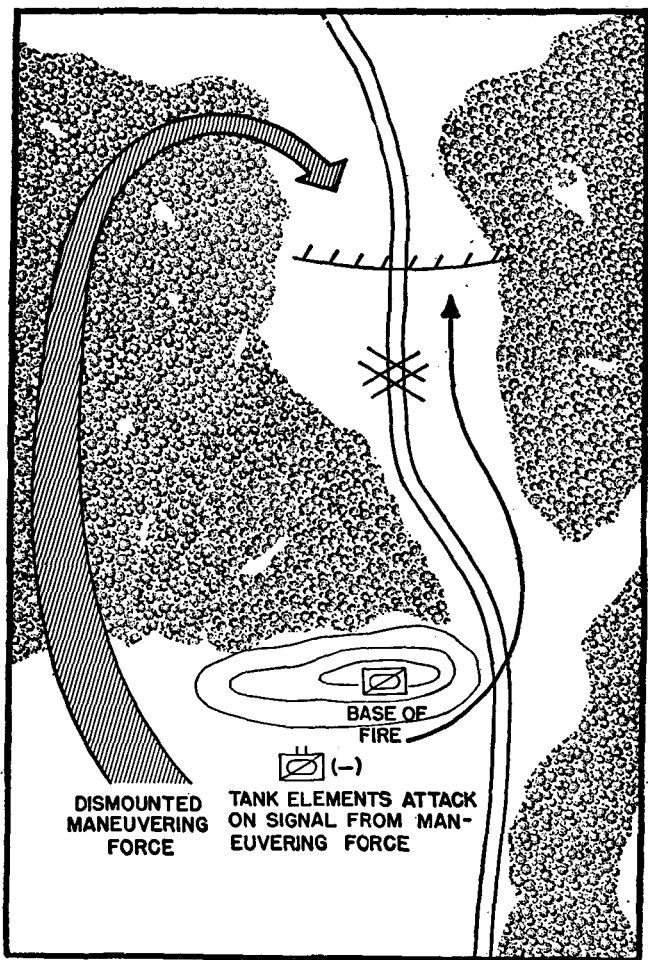
artillery and mortars particularly effective, and the battalion commander should make a complete plan for use of these fires.

b. If the enemy is holding a cleared avenue, such as a road running through the woods, the battalion may employ an entirely dismounted maneuvering force. This force makes a flanking move through the woods so as to come out on the road in rear of the enemy position (fig. 67). In such an attack the tank elements are employed in an aggressive secondary attack. When the maneuvering force places small-arms fire on the enemy rear and flanks, the tank element moves down the road and attacks the position frontally.

## **Section X. COLD WEATHER OPERATIONS**

### **203. GENERAL**

a. The reconnaissance battalion must develop and master certain winter warfare techniques before it can apply the usual principles of offensive and defensive operations (FM 70-15). Mobility of the battalion may be greatly reduced because of deep snow. Extremely low temperatures necessitate wearing bulky clothing, which to some extent restricts individual activity. When snow is on the ground, it is difficult to obtain effective camouflage and surprise. Occasionally vapor clouds form around vehicles; these clouds are easily seen from long distances and often reveal the position of an attacking force. Although progress may be somewhat slower and more difficult, the general principles of employment for the battalion remain



*Figure 67. Attack of a defile in a heavily wooded area. The base of fire provides fire support to both maneuvering force and tank elements.*

the same; however, objectives normally are limited. Vehicles should be used at every opportunity—to fight from, for transportation, and for protection from the weather. Personnel and equipment quickly become casualties of the cold unless constant attention is given to preventive measures.

b. Thaws may appreciably reduce the trafficability of much of the terrain. With proper training, the tank driver can learn to pick firm ground and maintain his mobility; but the wheeled vehicles must remain on firm roads. Care should be taken to locate all installations on terrain not subject to flooding by sudden thaws. Maintenance of all types must be constantly stressed.

## **Section XI. DESERT OPERATIONS**

### **204. GENERAL**

For a detailed discussion of desert operations, see FM 31-25. The lack of natural obstacles to movement makes desert terrain most suitable for the use of armor. Lack of concealment makes it very difficult to hide the presence of armored units, and extensive use of camouflage is necessary. Surprise can sometimes be gained by night movements, but is primarily accomplished by the rapid mobility of the tracked and wheeled vehicles of the battalion. The necessity for dispersion makes control difficult, but this may be overcome by thorough training in radio procedure and use of visual signals. Tracked vehicles create large clouds of sand and dust, this makes it necessary to have a simple visual signal system for recognition. This

system may employ signal lamps, flares, or colored smoke.

## **205. CONDUCT OF DESERT OPERATIONS**

Because of the unlimited room for maneuver, the reconnaissance battalion is normally given security missions for the division or a combat command. This type of mission usually requires the battalion to operate over an extended frontage to the flanks, rear, or front of the division. The companies are given zones of action, and the mission is accomplished by a series of mounted patrols and the use of observation posts on dominating terrain features. Full use is made of the organic Army aircraft to assist in the execution of reconnaissance or security missions. Because of the great areas involved and the lack of major obstacles to mechanized movement, the reconnaissance battalion may, on occasion, be reinforced with additional supply vehicles and given a mission requiring movement over a long distance or involving a relatively long period of time.

## **Section XII. ACTION AGAINST AIRBORNE ATTACK**

### **206. GENERAL**

*a.* Airborne attacks are delivered against relatively undefended localities, utilizing the capabilities of air movement to strike deep in rear areas and to permit the selection of objectives within wide geographical limits.

*b.* The basis for any defense against airborne attack lies in a thorough knowledge by the defender of the capabilities and limitations of air-

borne troops. This knowledge is gained by training in airborne equipment, methods, and limitations. The airborne force can be expected to have initial numerical superiority, but the defending force is initially much stronger in heavy supporting weapons and transportation. The defender must capitalize on this advantage by executing a rapid counterattack, as in the conduct of a mobile defense. The counterattack is delivered before the hostile airborne force is organized and paves the way for its ultimate destruction.

c. The division commander may frequently employ the reconnaissance battalion as an anti-airborne force. The battalion's rapid mobility and long-range communication facilities make it well suited for employment on this type of mission.

## **207. RECONNAISSANCE FOR ANTIAIRBORNE DEFENSE**

Upon the receipt of orders directing the preparation of a defense against an airborne attack, the commander of the reconnaissance battalion should immediately reconnoiter the area he is required to defend. During this reconnaissance he should determine the probable landing areas and likely objectives of an airborne force; he also contacts all service installations which may be in his area in order to coordinate defensive measures. He should then select the terrain features and roads which may be used in the establishment of a warning system and in the movement of defending forces. The battalion commander also selects a position for the bulk of the battalion.

This position is usually centrally located and should be so placed as to take maximum advantage of the existing road net. It is occupied by all the battalion less the elements employed in the warning system.

## **208. PLANS FOR ANTI-AIRBORNE DEFENSE**

*a.* Passive defensive measures are undertaken upon completion of the commander's reconnaissance. These measures may be divided into two groups. One group is designed to deny probable landing areas to the enemy by the erection of obstacles, such as poles or stakes, and by the mining of these areas. The second group of passive defense measures includes the selection of likely objectives and the construction of defensive works around these objectives. This includes the preparation of important bridges for demolition, with the demolition switches located at a distance from the bridges themselves.

*b.* The battalion commander makes a detailed plan for the active defense of the area. This plan covers the movement of the battalion to any of the critical objectives within the sector. The battalion should conduct rehearsals that require the operation of the warning system and the movement of the defending forces. The plan also provides for the rapid and timely dissemination of information to all higher and lower headquarters as to the location of the attacker and the operations of the defending troops. The plan should provide for the concentration of all elements of the battalion to permit the rapid employment of the full weight

of the battalion against the enemy. The rehearsal of the battalion in its plan of defense includes the movement along previously reconnoitered routes to all of the critical tactical objectives within the area. These rehearsals should be held as often as the situation permits.

## **209. WARNING SYSTEM FOR ANTI-AIRBORNE DEFENSE**

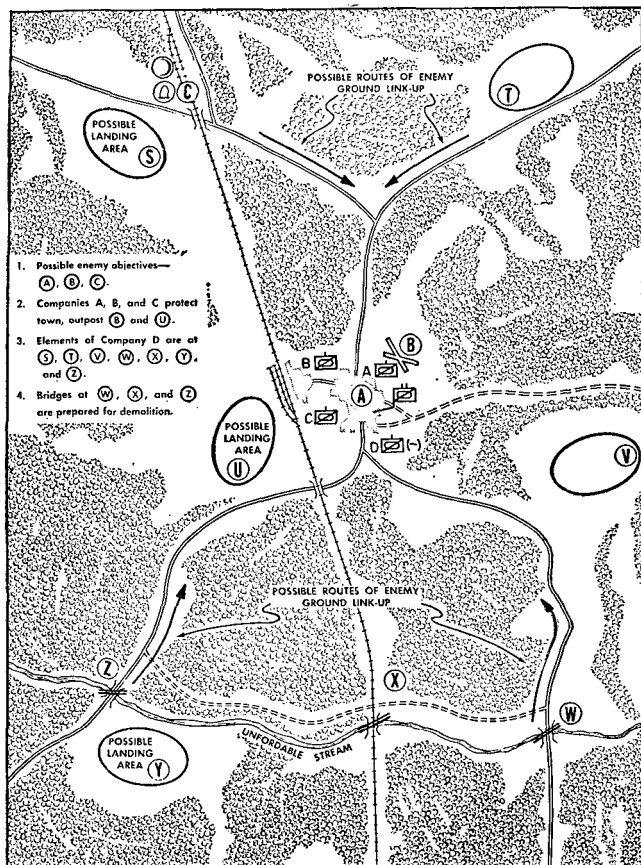
*a.* The portion of the battalion employed as a warning system should be as small as efficient coverage will allow. Its mission is to give prompt warning of the location and strength of the attacking force. Observation posts and mobile patrols, equipped with adequate radio communication and visual signal devices, should occupy dominant terrain features and travel selected routes to ensure complete coverage of the battalion sector of responsibility.

*b.* On occasion the higher commander may use the armored division to establish an anti-airborne defense. The reconnaissance battalion is normally employed as the warning system in this type of divisional employment.

## **210. CONDUCT OF ANTI-AIRBORNE DEFENSE**

*a.* The successful conduct of a defense against an airborne attack depends upon the speed with which the defending force is able to initiate its defensive plans (fig. 68). Upon the receipt of an alert from higher headquarters, the battalion commander should require his troops to prepare





*Figure 68. Reconnaissance battalion organization for anti-airborne defense.*

for action on a moment's notice. Vehicles are manned, communication facilities are checked, and subordinate commanders are briefed. After the commander has insured the readiness of his unit,

he may permit a rotation of his personnel to allow the maximum amount of rest commensurate with the situation. The alarm which informs of actual airborne landings may come through higher headquarters or, if the landings are within the battalion area of responsibility, from the warning system the battalion has established. Of immediate concern to the battalion commander is the exact location of the attackers. He must determine this through additional information supplied by his warning system, or through additional ground reconnaissance by elements sent out from the central battalion position. These elements, if employed, should be given a mission of reconnaissance rather than combat; they must not allow themselves to be swallowed up by the landing troops, who can be expected to be well armed with hand-carried antitank weapons.

b. From information obtained through the warning system, the battalion commander must determine the location and possible objectives of the hostile airborne troops. He must then move his unit with all possible speed to place the entire strength of the battalion against the airborne enemy. His mission is to contain the enemy and prevent him from reaching his objective, or, lacking the forces to do this, to delay the enemy advance and attempt to disrupt the timetable of the enemy action. The more rapidly the battalion can deliver its initial action, the greater will be the opportunity for success. Unwarranted delay will permit the airborne units to increase their strength of personnel, equipment, and position.

## CHAPTER 10

### SUPPLY, MAINTENANCE, MEDICAL SERVICE, ADMINISTRATION

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#### Section I. GENERAL

#### 211. LOGISTICS, GENERAL

*a.* Logistics (FM 17-50) is the art of planning and executing military movement, supply, maintenance, and evacuation.

*b.* Logistical support is a command responsibility, and this responsibility cannot be delegated. The reconnaissance battalion commander is responsible for the logistical support of the battalion and any attached units. He is assisted in this function by the battalion S4 and the supply, maintenance, and medical personnel of the battalion. Each unit and organization commander is responsible for all Government property under his control and will enforce supply economy and the conservation of equipment and material.

*c.* The battalion S4 plans, coordinates, and supervises all supply, maintenance, and evacuation activities within the battalion. The battalion S4 keeps the battalion commander advised on the logistical situation within the battalion. In detail, his duties include—

- (1) Procuring and distributing supplies required by the battalion (normally, how-

ever, medical, vehicular, and signal items are actually procured by the battalion surgeon, motor officer, and communication officer respectively; the S4 supervises and insures procurement of these items).

- (2) Coordinating logistical matters with the division G4, the appropriate division special staff officers of the technical services, and other logistical personnel.
- (3) Assisting company commanders in logistical matters.
- (4) Recommending composition and movement of battalion service elements to support the tactical plan.
- (5) Allocating regulated items of supply in coordination with the battalion S3.
- (6) Recommending and disseminating, within the battalion, logistical policies, procedures, instructions, and orders.
- (7) Supervising administrative transportation within the battalion, and coordinating with the battalion S3 in the planning and control of movements and traffic.
- (8) Supervising property accounting and property records; maintaining records to reflect the current logistical situation.
- (9) Submitting logistical reports as directed.
- (10) Supervising maintenance and repair of equipment, supplies, and utilities.
- (11) Furnishing transportation for the evacu-

ation of prisoners of war, captured enemy matériel, salvage, and the dead.

- (12) Supervising food service activities in the battalion.

*d.* Other supply personnel in the battalion include the following:

- (1) Supply platoon leader. The supply platoon leader is the principal assistant to the battalion S4. He operates his platoon under the direct control of the battalion S4. His duties include the actual procurement, movement, and distribution of most supplies needed by the battalion. When the battalion trains are divided into combat and field trains, the supply platoon leader normally operates with the battalion field trains.
- (2) Supply warrant officer. The warrant officer in the S4 section is also an assistant to the battalion S4. He maintains the battalion supply records and assists in the procurement, distribution, and turn-in of supplies. Contact and liaison are also a part of his duties.

## **212. SUPPLY, GENERAL**

*a.* The impetus of supply is from the rear to the front; that is, toward the point of consumption. Each commander is responsible for making his requirements known to higher headquarters in sufficient time to permit furnishing the needed supplies by normal methods.

*b.* Establishment of reserves of supplies in all

echelons—from the individual soldier and vehicle to the highest units—assists in assuring combat units of sufficient supplies regardless of the irregularities of combat. Adequate supplies must be carried without creating an excess that will hinder the mobility of the unit concerned. This dispersion which is characteristic of reconnaissance operations has a tendency to separate units from supply sources. This requires that units and individuals be able to sustain themselves for limited periods of time. In order to meet this requirement, maximum flexibility of procedure must be allowed.

c. Advance planning is essential for success. With respect to supply, it is mandatory. The S4 plans must be simple and continuous. The simple plan is usually the best plan. Continuity of supply requires constant future planning. Flexibility and mobility in supply operations are necessary to meet rapidly changing situations. A compromise must be made in order to obtain both a reasonable continuity and the necessary tactical mobility. Advance planning, in brief, involves careful, logical, and meticulous coordination to insure success.

### **213. CLASSES OF SUPPLY**

a. Supplies are divided into five major classes—

- (1) Class I supplies consist of those articles which are consumed by personnel at an approximately uniform rate, irrespective of local changes in combat or terrain conditions. Rations are the principal class I supplies. Using units normally obtain rations by submitting a ration request to the division quartermaster.

- (2) Class II supplies consist of supplies and equipment for which allowances are established by tables of organization and equipment, tables of allowances, equipment modification lists, or other lists or letters which prescribe specific allowances for a unit or for an individual. Examples are clothing, weapons, mechanics' tools, spare parts, and supplies for authorized equipment.
- (3) Class III supplies consist of fuels and lubricants for all purposes except for operating aircraft or for use in weapons such as flame throwers. Examples are such petroleum products as gasoline, kerosene, fuel oil, lubricating oil, and greases; and such solid fuels as coal, coke, and wood.
- (4) Class IV supplies consist of supplies and equipment for which allowances are not prescribed or which are not otherwise classified. Examples are construction and fortification materials. Class I, II, III, and V items may be subject to class IV issue when issued in excess of prescribed allowances or for purposes not regularly authorized.
- (5) Class V supplies consist of ammunition, explosives, and chemical agents. Examples are small-arms and artillery ammunition; grenades and mines; explosives such as dynamite, TNT blocks, fuzes, blasting caps, and detonators; pyrotech-

tics; and chemical agents (including flame-thrower fuel).

- (6) Class II A supplies (aircraft and aircraft supplies and equipment) and class III A supplies (aircraft fuel and lubricants) which are required for the operation of the battalion's organic Army aircraft are obtained through the appropriate technical services of the division (FM 20-100).

b. Within the armored division, class II and class IV supplies are normally considered together.

## **Section II. SUPPLY**

### **214. BATTALION TRAINS**

a. The battalion S4 is responsible for the operation, security, and movement of the battalion trains. Within the battalion the executive officer normally coordinates logistical and personnel activities; therefore the battalion S4 generally operates under his supervision.

b. The battalion trains normally consist of elements of the administrative, mess, and supply sections of the various reconnaissance company headquarters; the battalion supply platoon; the battalion maintenance platoon; and the battalion medical detachment. The battalion administrative and personnel section normally operates in the division administrative center. Because of the dispersion inherent to security and reconnaissance



operations, the *battalion trains* are usually employed as a unit. However, when the battalion is operating under control of one of the major subordinate commands of the division, the battalion trains are normally subdivided into battalion combat and battalion field trains. When so organized, the battalion combat trains consist of those vehicles of the battalion trains which are required for the immediate support of the combat operations; while the battalion field trains consist of those vehicles of the battalion trains which are not required for the immediate support of combat operations, and which are not included in the battalion combat trains.

c. When the battalion is required to detach one of the reconnaissance companies to reinforce other elements of the division, a proportionate number of ammunition and fuel and lubricants trucks should be sent with this company. In addition, a medical  $\frac{1}{4}$ -ton truck with litter rack normally accompanies the detached unit.

d. Depending on the situation and the existing time and space factors, the organic cargo transportation of the reconnaissance companies may be placed in the battalion trains or held under company control. Because of the dispersion which is characteristic of most of the battalion's operations, maintenance section and company cargo trucks are very often held under company control. However, when the organic company cargo trucks are held under battalion control, they are initially placed in the battalion field trains if the battalion trains are so organized.

## 215. BATTALION COMBAT TRAINS

a. The battalion combat trains normally consist of the following vehicles and personnel:

- (1) The vehicles necessary to handle the anticipated ammunition requirements for the day's operation.
- (2) The vehicles necessary to handle the anticipated fuel and lubricants requirements for the day's operation.
- (3) Usually the major part of the battalion maintenance platoon, but under some circumstances only the recovery section.
- (4) Normally the entire battalion medical detachment, less a small element that may operate with the battalion field trains.

b. The composition of the battalion combat trains must be flexible, since certain situations demand large quantities of fuel and lubricants but relatively small quantities of ammunition. Conversely, other situations demand large quantities of ammunition but relatively small quantities of fuel and lubricants. Further, the tactical situation may be such that only medical facilities and certain maintenance facilities are desirable in the combat trains.

c. The battalion combat trains are controlled by the battalion S4, and usually are moved by him as directed by the battalion executive officer. The resupply element of the battalion combat trains—which consists primarily of the ammunition and

fuel and lubricants vehicles—is commanded by either the supply platoon leader, the headquarters and service company commanders, or another designated officer or noncommissioned officer. The maintenance elements are commanded by the battalion motor officer, and the medical elements by the battalion surgeon.

*d.* The battalion combat trains are normally located to the immediate rear of the battalion combat elements. This of necessity must vary with the situation and the terrain. In a fast-moving situation, the maintenance vehicles and supply vehicles of the battalion combat trains normally march at the rear of the battalion elements; medical service is scattered throughout the column, the aid station traveling in the vicinity of the battalion command post. In slow-moving situations, all elements of the combat trains usually move by bounds in rear of the combat elements of the battalion. In a static situation the battalion combat and field trains may be combined to operate as unit trains and are located well in rear of the combat elements of the battalion. In this case, local terrain features and existing buildings should be utilized to insure concealment and, if possible, to enable the maintenance facilities to operate with lights.

*e.* The security of the battalion combat trains is provided for the most part by their location with respect to the combat elements of the battalion. When the necessary protection cannot be insured by their location, it may become necessary to attach combat elements to the trains for security purposes.

## **216. BATTALION FIELD TRAINS**

*a.* The same flexibility of organization that applies to the battalion combat trains exists in the composition of the battalion field trains. The battalion field trains contain those vehicles which are not necessary for the immediate support of the combat elements. They normally consist of the cargo trucks not being employed in the battalion combat trains, a small part of the battalion maintenance platoon, and a small part of the battalion medical detachment. The organic cargo and kitchen trucks of the reconnaissance companies may be included in the battalion field trains.

*b.* The battalion field trains are usually under the command of the battalion supply platoon leader. When the battalion is operating under the control of a combat command, the battalion field trains normally become part of the combat command trains; they are held under the control of the combat command S4, who is responsible for their movement and security. The technical and logistical operation of the battalion field trains is the responsibility of the battalion S4.

## **217. RESUPPLY OF THE RECONNAISSANCE COMPANIES**

*a.* Resupply of the reconnaissance companies is normally accomplished during the hours of darkness. The ammunition and fuel and lubricants trucks which actually accomplish the resupply to the companies should be guided to the individual combat vehicles in order that time and energy may

be conserved in handling these heavy items. Combat vehicles should not be required to move to the rear in order to be resupplied. To facilitate resupply and ascertain the requirements of the companies, the battalion S4 usually contacts each company at least once daily. Regardless of this contact by the battalion S4, it is the responsibility of each company commander to notify the battalion commander, or his representative, of the exact daily supply requirements for his company.

b. Reconnaissance companies are resupplied by one of three methods:

- (1) When all of the organic company cargo trucks are held under company control, they proceed to the battalion trains area (or, if the trains are divided, to the battalion combat trains area), refill, and then return to the company.
- (2) Trucks from the battalion supply platoon may deliver supplies to the companies. When resupply has been completed, the trucks are dispatched back to the battalion trains area or, if the trains are divided, to the battalion combat trains area.
- (3) When the organic company cargo trucks are held under battalion control, the necessary trucks, battalion and/or company, are dispatched to each company area and resupply is effected as above.

c. The platoons are resupplied either by sending trucks loaded with one class of supply to each

platoon in turn, or by sending trucks with mixed loads (two or more classes of supply on the same truck) to each platoon simultaneously. The former affords the most control, but it requires more time than the latter. Guides meet the resupply vehicles and lead them to each tank or combat vehicle for resupply.

## **218. RESUPPLY TO TRAINS, CLASS III AND CLASS V SUPPLIES**

*a.* The battalion S4 ascertains the resupply requirements for the current period of operations, and by using this information makes an estimate of the requirements for the following period. When the battalion trains are not divided into combat and field trains, he then notifies the battalion supply platoon leader to send the necessary cargo trucks to the rear to obtain the resupply requirements for the coming period. The battalion supply platoon leader then dispatches the empty trucks in convoys, with protection if necessary, to division or army supply installations, as directed, for refill. The trucks then return to the battalion trains area, where they remain until dispatched forward to the companies by the battalion S4.

*b.* When the battalion is operating under the control of a combat command, the battalion trains are normally divided into combat and field trains. The battalion field trains operate from the combat command trains area, usually under the command of the battalion supply platoon leader. When the empty cargo trucks return to the battalion field trains, the supply platoon leader obtains clearance

from the combat command S4 and then dispatches the trucks, in convoys, to division or army installations for refill. The trucks then return to the battalion field trains area, where they either revert to the command of the supply platoon leader, becoming part of the battalion field trains, or are dispatched forward to the battalion combat trains, as directed by the battalion S4.

c. The battalion S4 resupplies the battalion combat trains by instructing the battalion supply platoon leader to send forward the necessary loaded vehicles from the field trains area. The supply platoon leader, after receiving proper clearance from the combat command S4, dispatches the required vehicles to the battalion combat trains. These trucks then become a part of the battalion combat trains for resupply during the next period of operations. The battalion S4 must also be prepared to effect emergency resupply as the situation demands, and must keep informed of the current operation in order to increase the strength of the combat trains in accordance with the requirements of the reconnaissance companies.

## **219. RESUPPLY, CLASS I (RATIONS)**

In combat, the ration truck normally moves as a part of the battalion trains or, when the trains are divided, with the battalion field trains. The battalion draws rations in bulk from the division class I supply point; these rations are normally broken down into company lots in the battalion trains (field trains) area. When the company kitchen trucks are held with the reconnaissance

companies, each company picks up its rations at the battalion trains area or, when the trains are divided, at the battalion combat trains area. When it is possible to feed hot meals and the kitchen trucks are held under battalion control, rations are issued to the kitchen trucks in the battalion trains area (or in the battalion field trains area), and the trucks are then sent forward to their individual companies. In certain instances when the kitchen trucks are held under battalion control, hot meals may be prepared and then carried forward in heat-retaining containers. If it is not possible to feed hot meals, small-detachment type rations or individual combat type rations are sent forward on supply trucks at the same time the companies are resupplied with gasoline and ammunition.

## **220. RESUPPLY OF WATER**

The water truck normally travels with the battalion trains or, when the trains are divided, with the battalion field trains. Water is procured from a division water supply point and is resupplied to the combat elements of the battalion as required, normally at the same time other supplies are being distributed. To speed delivery, a can-for-can basis of exchange is normally employed.

## **221. RESUPPLY, CLASS II AND CLASS IV**

Within the armored division, class II and class III are normally handled as a single class of sup-



ply. The reconnaissance battalion normally effects resupply of class II and IV items during rest and refitting periods; during combat, these items are supplied in quantity only to fill emergency requirements. Essential organizational replacements of battle losses or damaged items are obtained by exchange or requisition at the appropriate division service agency. In actual combat, the battalion motor officer normally obtains replacements for critically needed items of ordnance equipment, such as vehicular spare parts, by direct exchange at the supporting divisional ordnance unit. The battalion surgeon obtains essential medical items from the supporting divisional medical unit, and the battalion communication officer obtains essential signal equipment from the supporting divisional signal unit. Other class II and IV supplies, such as quartermaster clothing and equipment, normally are not procured during actual combat operations.

## **222. COMPOSITION OF VEHICULAR LOADS**

When resupply vehicles are loaded at supply points, each truck is normally loaded with only one class of supply. After the trucks arrive at the battalion trains area or, when the trains are divided, at the battalion field trains area, mixed loads may be formed in accordance with the anticipated requirements of the combat elements. This insures that the minimum number of trucks will be actually involved in the resupply of the combat elements. From the battalion trains area (or the field trains area) the mixed loads are dispatched to resupply the combat elements.

## **Section III. MAINTENANCE AND VEHICULAR EVACUATION**

### **223. GENERAL**

Maintenance is the care taken and work done to keep any item of equipment in good condition. Organizational maintenance is performed by drivers, crewmen of vehicles, and organizational mechanics. They must accomplish proper and frequent lubrication, cleaning, adjustment, and repair of vehicles and equipment. They must be constantly on the alert for wear and tear which might cause breakdowns. Defects must be repaired or promptly reported to the next higher maintenance organization for necessary repairs. The company maintenance sections and the battalion maintenance platoon perform all organizational and preventive maintenance and repair which can be performed with the available time, tools, spare parts, and skilled personnel. The battalion maintenance platoon supports the company maintenance sections by performing maintenance work and repairs beyond the capabilities of the company maintenance sections. Field maintenance is performed by division or army service units; they are responsible for maintenance beyond the capabilities of the battalion.

### **224. BATTALION MOTOR OFFICER**

The battalion motor officer commands the battalion maintenance platoon and operates it under the supervision of the battalion S4. He keeps the battalion S4 informed as to the current status of

vehicular maintenance within the battalion. The warrant officer in the battalion maintenance platoon assists the battalion motor officer in all functions and duties assigned to him. The duties of the battalion motor officer include—

*a.* Preparing the battalion plan for maintenance support and vehicular evacuation, based on the tactical plan.

*b.* Modifying the maintenance and vehicle operation plan to conform to changing tactical conditions.

*c.* Executing the maintenance and vehicle evacuation plan.

*d.* Maintaining continuous liaison with the companies to insure efficient operation of the company maintenance sections.

*e.* Maintaining continuous liaison with the supporting ordnance unit to effect rapid return of repaired vehicles and to make known the vehicle evacuation requirements of the battalion.

*f.* Maintaining the prescribed level of vehicular spare parts within the battalion.

*g.* Coordinating the training of mechanics within the battalion.

*h.* Exercising technical supervision of all vehicular maintenance within the battalion.

## **225. MAINTENANCE PROCEDURES**

Each maintenance element within the reconnaissance battalion performs preventive maintenance and repair work within its capabilities.

Company maintenance sections normally operate in direct support of their companies. Vehicles which cannot be repaired by the battalion maintenance platoon are normally evacuated to the division ordnance maintenance battalion. When the reconnaissance battalion operates directly under divisional control, the battalion maintenance platoon works directly with the division ordnance maintenance battalion. When the reconnaissance battalion is attached to a combat command, the battalion deals directly with the ordnance maintenance company supporting the combat command.

## **226. VEHICLE EVACUATION PROCEDURES**

*a.* When the reconnaissance battalion is employed in offensive operations involving rapid movement, vehicle evacuation is normally accomplished as follows:

- (1) Company maintenance sections evacuate disabled vehicles which they cannot repair to the battalion axis of supply and evacuation, and report their location and condition to the battalion maintenance platoon.
- (2) If the disabled vehicle can be repaired by the battalion maintenance platoon, it is picked up by the recovery vehicles, towed forward to the next battalion trains position, and repaired at that location.
- (3) If the vehicle cannot be repaired by the battalion maintenance platoon and the tactical situation permits, one or two men

from the vehicle crew may be left with the vehicle on the axis of supply and evacuation. The location of the disabled vehicle and its condition are reported to the supporting ordnance unit, which is then responsible for evacuating the vehicle.

b. When the reconnaissance battalion is employed in slow-moving offensive operations or defensive operations, vehicle evacuation is normally accomplished in the following manner:

- (1) The battalion platoon establishes a vehicle collecting point (VCP) in a central location, normally in the battalion trains area.
- (2) Companies evacuate disabled vehicles, except tanks, to the battalion VCP. Tanks are evacuated by the recovery vehicles of the battalion maintenance platoon.
- (3) The battalion maintenance platoon evacuates disabled vehicles that it is unable to repair to the VCP of the supporting ordnance unit.

#### **Section IV. MEDICAL SERVICE AND PERSONNEL EVACUATION**

##### **227. GENERAL**

a. Medical service and evacuation of personnel casualties, for both the battalion and any attached units, are the responsibility of the battalion commander. He is assisted in carrying out these re-

sponsibilities by the battalion surgeon. The battalion surgeon commands the medical detachment and also performs the functions of a special staff officer. As a staff officer the surgeon is responsible to the commander for all matters pertaining to the health of the command; he normally operates under the supervision of the battalion executive officer. The battalion surgeon makes timely inspections and submits practical recommendations for improvement of sanitation within the battalion. He also keeps the commander informed as to the health of the command and the capabilities of the medical detachment. The medical service corps officer, who assists the battalion surgeon, is responsible for supervising the administration of the detachment, the establishment of the aid station, routine sanitary inspections, maintenance of vehicles and equipment, procurement of supplies, and emergency treatment of slightly wounded personnel.

b. Medical service must be continuous. The primary consideration in the processing of personnel casualties is prompt medical treatment and evacuation, if necessary, to installations with the proper facilities for further treatment. First aid is usually rendered by the vehicular crew members, who must be able to use the vehicular first-aid kits and who must be trained in first aid for burns and various types of wounds, controlling hemorrhage, prevention and treatment of shock, and use of morphine. Medical aidmen, riding in  $\frac{1}{4}$ -ton trucks equipped with litters, operate in support of each reconnaissance company and supplement the first aid given by the vehicular crews with necessary

emergency medical treatment. They also initiate an emergency medical tag for each casualty, and evacuate the casualties either to the battalion aid station or to a predesignated casualty collecting point to await further evacuation. Upon arrival at the battalion aid station, the casualties are treated and prepared for further evacuation to the rear, or are returned to duty, as the situation warrants. The emergency medical tag is completed in each case, noting the additional treatment given at the aid station. The disposition of each case is entered in a log book maintained in the aid station.

c. The battalion aid station is established to provide a collecting point where casualties can be received and treated to prepare them either for return to duty or for evacuation farther to the rear. In offensive operations, the battalion aid station is kept forward on the battalion axis of advance, generally in the vicinity of the battalion command post. In a penetration, the aid station moves by bounds. In an exploitation, the aid station is normally located well forward in the column. In a defensive operation, the battalion aid station is kept to the rear, generally in the vicinity of the battalion combat trains. The medical detachment of the reconnaissance battalion has one short-range radio for communication with the companies and with the supporting armored medical company. The battalion may at times be extended beyond the range of this radio; in such instances the battalion surgeon should utilize the long-range radio of the battalion S4 for communication.

d. Medical support for the reconnaissance bat-

talion is furnished by a detachment from the division armored medical battalion. When the battalion aid station is located at a considerable distance from its medical support, ambulances from the medical support unit should be attached to the battalion. It is the responsibility of the supporting armored medical company to evacuate casualties from the battalion aid station.

## **Section V. PERSONNEL AND ADMINISTRATION**

### **228. GENERAL**

The reconnaissance battalion commander is responsible for the personnel management and administration of his battalion. The adjutant (S1) is responsible for keeping the battalion commander informed on matters pertaining to personnel management and administration, and assists him in the supervision of the operation of these activities. The details of personnel management and administrative regulations will depend on the standing operating procedures set forth by higher headquarters and on those adopted within the unit by the battalion commander.

### **229. ORGANIZATION AND OPERATION OF THE S1 SECTION**

The S1 normally maintains his office at the battalion command post. The administrative and personnel section of the headquarters and service company is supervised by a warrant officer, who operates under the control of the S1. This section in-



cludes an enlisted personnel management noncommissioned officer, personnel technicians, clerks, and a driver. The personnel officer and his group normally operate in the division administrative center.

### **230. DUTIES OF THE BATTALION S1 (ADJUTANT)**

The S1 (adjutant) has duties similar to those outlined in FM 101-5 for the adjutant general and for the G1 of the division and higher units. He is also responsible for the supervision of those duties charged to the personnel officer.

*a.* As adjutant, his duties include such administrative functions as—

- (1) Authenticating all orders and instructions except those pertaining to combat.
- (2) Processing all official correspondence.
- (3) Insuring that administrative and personnel records are maintained in accordance with established policies and procedures.
- (4) Accomplishing all functions not specifically the responsibility of another staff officer, or as assigned by the commander.

*b.* As S1, his duties concern the following, as discussed in succeeding paragraphs:

- (1) Strength records and reports.
- (2) Replacements.
- (3) Discipline and law and order.
- (4) Prisoners of war.
- (5) Morale and personnel services.
- (6) Personnel management and procedures.
- (7) Miscellaneous administrative matters.

## **231. STRENGTH RECORDS AND REPORTS**

The S1 maintains data from which to submit periodic reports on unit strengths, location of units, both battle and nonbattle casualties, cumulative casualties by type, and prisoners of war.

## **232. REPLACEMENTS**

The S1 obtains replacements, and makes arrangements for receiving and processing them. He coordinates with S4 for supply and transportation and with S3 for assignment.

## **233. DISCIPLINE AND LAW AND ORDER**

a. The S1 maintains statistics on absence without leave, stragglers, awards and punishments, venereal disease cases, and courts martial.

b. He coordinates the return of stragglers to units.

c. He initiates the appointment of summary and special courts martial and supervises the administrative processing of charges.

## **234. PRISONERS OF WAR**

The S1 prepares plans, and supervises the execution of plans, for the collection and evacuation of prisoners of war. He must be careful to insure that these plans conform to higher headquarters' directives and announced policy for the handling of prisoners of war, and that they are sufficiently comprehensive to meet the needs of the battalion. In this connection the S1 must coordinate with the following staff officers:

a. *S2*, for estimates on the number of prisoners anticipated and facilities for any interrogation desired.

b. *S3*, for necessary guards for evacuation of prisoners.

c. *S4*, for transportation from the battalion area to the collecting point or enclosure announced by higher headquarters, and in some instances for rations, water, shelter, and medical service for the prisoners.

d. *Division G1*, for policies on specific problems encountered not covered in standing operating procedures.

### **235. MORALE AND PERSONNEL SERVICES**

a. The *S1* coordinates the procurement from higher headquarters of motion picture equipment and other recreational material, and supervises the scheduling of this material to personnel of the battalion.

b. He handles quotas allocated by higher headquarters to rest camps, rest areas, and leave centers.

c. He supervises the processing and administration involved in recommendations for, and awarding of, decorations and awards.

d. He keeps a constant check on the efficiency with which unit mail clerks operate, with a view to keeping mail service effective.

e. He assists the chaplain by keeping him informed as to the tactical situation and other factors which will affect his plans, and lends nonprofessional aid to the chaplain.

*f.* He insures the timely payment of troops by the appointment of class A agent finance officers.

*g.* He coordinates the activities of the personnel officer in matters of personnel management.

*h.* He obtains the services of the American Red Cross field director for those members of the command who need emergency assistance in their personal affairs.

## **236. PERSONNEL MANAGEMENT AND PROCEDURES**

The S1 ensures the practice of sound principles of personnel management by—

*a.* Supervising the assignment of personnel in accordance with the classification system.

*b.* Insuring the timely classification of enlisted personnel in accordance with established procedures.

*c.* Supervising the administrative processing of reclassification papers on officers.

*d.* Making recommendations for reassignments which will keep units properly provided with key personnel and which will present opportunities to deserving individuals.

*e.* Supervising the administrative processing of recommendations for promotion.

*f.* Putting into effect higher headquarters' policies and procedures on rotation, redeployment, and demobilization.

## **237. MISCELLANEOUS ADMINISTRATIVE MATTERS**

*a.* The S1 supervises the collection, evacuation, and, in exceptional cases, burial of the dead (FM

10-63). Collection of the dead is a command responsibility which rests with all elements of command. Evacuation is planned and coordinated with the S4. Burial of the dead becomes a function of the battalion if it becomes isolated from a higher command. The S1 must follow the procedures established in regulations and by higher headquarters with regard to identification, record-keeping, locations, and handling of personal effects.

b. The S1 supervises the movement and internal arrangement of the headquarters, coordinating with the battalion executive officer for the general location of the command post and with the S4 for transportation.

c. He coordinates the arrangements for ceremonies, and formulates and supervises plans for the proper handling of distinguished visitors to the battalion, coordinating with S2.

### **238. DUTIES OF THE BATTALION PERSONNEL OFFICER**

The battalion personnel officer is designated as assistant adjutant. He is charged, under the supervision of the S1, with the preparation, maintenance, and safekeeping of all records, documents, correspondence, and statistics of a personnel and administrative nature that are not required to be kept at the command posts of the companies or battalion (AR 345-5). Specifically, he is—

a. Responsible, under the S1, for the administration of all company personnel records of which he is custodian. These do not include basic company records retained by company commanders.

b. Charged with the custody of company funds (TM 20-221) when the companies go into combat or when, in the opinion of the battalion commander, funds might be lost because of casualties. He receipts for the funds and for all papers pertaining to them. He has no authority to make disbursements, and returns the funds to the permanent custodians when the situation permits.

c. Charged with training replacement clerks for battalion headquarters.

## CHAPTER 11

### TRAINING

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#### Section I. TACTICAL AND TECHNICAL TRAINING

#### 239. TRAINING OBJECTIVES

Higher headquarters usually designate the training objectives for the battalion. Training programs cover a definite period of time and usually designate the specific training objectives. These, in turn, indicate the subjects to be covered, the standards to be reached, and the tests to be given. The objectives of training programs are first, to develop highly trained individual soldiers; second, to train these soldiers as members of small-unit teams; and third, to train these teams to function effectively as part of a team of combined arms and services. Armored training emphasizes the following:

- a.* Spirit of the offensive.
- b.* Thorough basic training.
- c.* Marches and bivouacs.
- d.* Tactics.
- e.* Gunnery.
- f.* Maintenance.
- g.* Radio discipline.
- h.* Specialist training.

## 240. LEADERSHIP TRAINING

Military leadership (FM 22-5) is the art of influencing and directing people to an assigned goal in such a way as to command their obedience, confidence, respect, and loyal cooperation. To insure success under the most difficult conditions, leadership training must be carried on vigorously during all phases of training. The commander must train all members of his unit so that they know the principles, develop desirable traits, and practice sound technique in order to achieve true leadership. The development of leadership includes—

*a.* The analysis of leadership—

- (1) What leadership is.
- (2) Personal adjustment.

*b.* The techniques of leadership, emphasizing the roles of the leader in the following:

- (1) Setting the example.
- (2) As commander.
- (3) As an instructor.
- (4) As a personnel technician.
- (5) As a counselor.
- (6) As the custodian of men's welfare.

*c.* The objective of leadership—military efficiency—which includes—

- (1) Proficiency.
- (2) Discipline.
- (3) Morale.
- (4) Esprit de corps.

*d.* The special problems of leadership—

- (1) Leader-subordinate relations.
- (2) Combat leadership.



(3) Minority problems.

(4) Selection, evaluation, and training of leaders.

## **241. CONDUCT OF TRAINING**

In the conduct of training, the most effective means available must be utilized. Instructional methods (FM 21-5) must be developed which will produce highly trained combat units in the shortest time possible.

## **242. UNIT TRAINING**

Squad and section training is given only enough time to develop well-trained crews. Since the platoon is usually the smallest team of combined arms within the battalion, it is the basic unit for all training. Consequently, platoon training should be emphasized and should be allocated as much time as possible in order to develop each platoon into a well-coordinated and highly efficient combat team. Company training, which should result in the development of well-coordinated company teams, usually receives the second largest allocation of time. Battalion training, as such, receives the least amount of time. If the companies are well trained and the battalion staff has been trained during the company training period, battalion training will consist mainly of training the companies to work together; stress will be placed on field exercises to develop the companies into a battalion team. In all phases of training, previous phases are continued and amplified; platoon training, for exam-

ple, continues throughout company and battalion training.

## **243. INTELLIGENCE TRAINING**

a. Training programs list in detail the intelligence subjects which should be included. The success of intelligence operations in combat depends in large measure upon the quality of training in intelligence subjects within the battalion. A thorough appreciation of combat intelligence by each soldier is essential to obtaining information. The battalion S2 should see that the attitude of all is conducive to seeing, hearing, and reporting.

b. Intelligence training of all personnel in the battalion includes proper message writing and transmission of messages. Messages dealing with the enemy should be specific; they should state the size of the enemy forces observed, what the enemy is doing, where the enemy was observed, and when the observation was made. Each member of the battalion should be well grounded in the importance of enemy information. He must understand clearly that the small items of information which he reports as an individual are often pieces of a larger picture of the enemy situation. Each individual must feel his responsibility for reporting his share of the over-all picture of the enemy. Proper training will show each soldier why information is needed for making decisions and plans, and for the execution of these plans. All individuals should be trained in how information is obtained, how it is reported, and how it is utilized by commanders. Every opportunity must be used to

emphasize the importance of early reporting of definite information.

c. The training and techniques used in reporting information should be complete. How and when to report information, where to report it, what information should be expedited, the necessity for reporting information while it is still fresh—all are items which must be covered to make the training complete. Stress is placed on the reporting of exact locations and times events are observed. Fast-moving warfare requires that emphasis be placed on the time element in reporting. All members of the battalion must realize that in reporting vital information the fastest means of communication available should be used. All reports should contain the place, source of information obtained, location of observer, and authentication. There is a vast opportunity for both training in and testing the above procedures during field exercises.

d. Each individual in the battalion must realize what information is of value to the enemy, and the vital necessity for safeguarding military information must be stressed. Each individual should be well aware of the possible effects of innocent talk. Loose talk to women, civilians, strange soldiers, and even among themselves, or while on leave, may be the beginning of a chain of events which ends in disaster. Training includes proper disposition of letters, documents, maps, and orders which may be of value to the enemy. Posters, "don't talk" campaigns, and conferences are used to emphasize the importance of secrecy.

e. As a very practical training aid for intelli-

gence personnel and maneuvering troops, a standard maneuver enemy—Aggressor—has been developed in its entirety (FMs 30-101, 30-102, 30-103 and 30-104). Aggressor has a distinctive uniform; it has equipment made of pneumatic rubber, and employs sound and flash simulators and demolitions to represent artillery; and it has its own tables of organization, tactical doctrine, and characteristics. Since reconnaissance units are intelligence gathering agencies, they should be instructed in the order of battle, organization, equipment, and tactics of Aggressor.

#### **244. TRAINING IN MAP AND AIR PHOTO READING**

a. Elementary map and air photo reading covers the use of coordinates, scales, contours, and ridge lines and the methods used for designating critical areas. Concurrent training includes the use of road maps, air photos, and other map substitutes. Every effort must be made to keep this phase of the training practical and at the same time interesting. The use of conventional signs and military symbols used on maps and overlays should be included in this training. Training in the use of air photos covers the different types of photos required for various operations, and the use of air photos as supplements to maps. Critical interpretation of air photos is to be left to those qualified as photo interpreters. However, it should be stressed that a quick inspection of photos may indicate positive military information which may be of great use to patrols and other small units.

b. Practical exercises are the means used to develop awareness of the value of maps and air

photos. Interesting problems can be built around the location of terrain features on maps, on the ground, or on air photos. Problems should include checking maps against the ground, and night orientation. Inasmuch as maps are seldom completely accurate, the training should include the requirement of constantly checking the maps to discover the various discrepancies between the map and the ground.

## **245. ARTILLERY REQUEST AND ADJUSTMENT**

*a.* The reconnaissance battalion is usually deployed over a wide area; consequently there is a requirement for a larger number of field artillery forward observers than can normally be furnished by the direct-support artillery. All reconnaissance commanders should therefore be qualified to adjust artillery fires. This training is designed to supplement the normal attachment of field artillery observers. The following example of a fire request will be used as a guide for all fire requests made by members of the reconnaissance battalion:

Identification of observer by radio call or other means: WKS

Warning to the artillery that a fire mission is to follow:

### **FIRE MISSION.**

Grid direction to the target from the observer: AZIMUTH 4200

Location of target: 53.2-86.4

Nature of target: INFANTRY  
COMPANY IN OPEN

Control: WILL ADJUST.

b. The observer will request adjustments exactly as they appear to him. If it appears to the observer that the next round should be moved 100 yards to the right of the last round, the observer will correct RIGHT 100. If the correction is to be made to the left, it will be made in a like manner. If the observer wishes to have the next round fired 100 yards beyond where the last one hit, he will give the correction ADD 100; or if he wishes the next round to be 100 yards short of the initial round, he will correct DROP 100. After the observer is satisfied that the adjustment is correct, he will command the artillery, FIRE FOR EFFECT. The artillery will then fire to produce the desired effect on the target. The above method of adjustment is used in order to standardize fire adjustment procedures. For further details, see FM 6-135.

## **Section II. TACTICAL TRAINING — RECONNAISSANCE BATTALION, ARMORED DIVISION**

### **246. GENERAL**

a. The battalion or final unit training period is divided into four general parts: attack, defense, security, and reconnaissance. A final period is included for company and battalion tests, which should be conducted by battalion or higher headquarters. All battalion supply and maintenance echelons will participate in all battalion problems. Procedures to be used in combat should be followed.

b. Following the battalion-level tactical training, 78 hours (2 weeks) should be allowed for com-

bined training at the combat command level and 78 hours for combined training at the division level.

c. The following subject schedule shows the progression and relative importance of each subject to be covered during the tactical training of the reconnaissance battalion. The hours shown are intended as a guide only. They may be modified to meet individual training situations; however, the progression of subjects should be maintained. Deletion of hours should be in proportion to the original amounts stipulated.

### **Tactical Training—Reconnaissance Battalion, Armored Division**

P—Period.

H—Hours.

P	H	Lesson	Text references	Area	Training aids and equipment
1	23	Battalion in Attack	FM 17-35, chapter 5	Field	Organic combat equipment; expedients for combat realism, materials for critique.

(Artillery should be made available to the battalion for this exercise to insure that the unit is familiar with the close coordination that is necessary between the assault force and any supporting fires. The employment of company tank-infantry teams should be stressed in this period. The period should also include marches and night operations.)

2	16	Battalion in Defense	FM 17-35, chapter 7	Field	Organic combat equipment; expedients for combat realism, materials for critique.
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(This exercise should be equally divided between the sustained defense and the mobile defense. It should emphasize the reconnaissance, selection, organization, and preparation of the ground for both types of defense. The exercise should also stress the types of missions that will call for the two types of defense, such as filling a gap between two armored infantry battalions and holding a portion of a higher command's outpost system.)

P	H	Lesson	Text references	Area	Training aids and equipment
3	39	Security Operations	FM 17-35, chapter 3	Field	Organic combat equipment; expedients for combat realism, materials for critique.

(Greatest stress and the most time are given to this subject, because security missions will be the type most often assigned to the reconnaissance battalion. All types of security should be covered, emphasizing the following: flank security in static and mobile situations, delaying action, counterreconnaissance, supply route security, and antiairborne security for the division.)

4	20	Reconnaissance Operations	FM 17-35, chapter 4	Field	Organic combat equipment; expedients for combat realism, materials for critique.
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(This exercise should stress the battalion operating as a unit on a reconnaissance mission. The situation should require the companies to deploy their platoons and to fight to obtain information. It should include the proper transmission of information from company to battalion and from battalion to the next higher headquarters.)

5	19	Tests	FM 17-35	Field	Organic combat equipment; expedients for combat realism, materials for critique.
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(This period is reserved for performance tests conducted by higher headquarters. The problems and the tests should be as thorough as possible.)

6	78	Combined Training, Combat Command Level	FM 17-35 FM 17-100	Field	Organic combat equipment; expedients for combat realism, materials for critique.
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(One 2-week field problem or two 1-week field problems, with the battalion operating within the framework of a combat command, is considered essential to the training program. Maintenance, supply, and evacuation, as well as the tactical employment of the battalion, should be stressed throughout the problem.)



P	H	Lesson	Text references	Area	Training aids and equipment
7	78	Combined Training, Division Level	FM 17-35 FM 17-100	Field	Organic combat equipment; expedients for combat realism, materials for critique.

(A 2-week maneuver with the division should complete the training for the reconnaissance battalion. Security and reconnaissance missions should be stressed during this period.)

## 247. GUIDE FOR PREPARING BATTALION TRAINING PROGRAM

a. The battalion training program given in the previous paragraph should be used as a guide only. Battalion training commences when all the battalion units have completed their individual and unit training. Battalion training is team training and if possible should be conducted in conjunction with other members of the armored division combined arms team.

b. This suggested training program is based on periods of 3 or more days at a time being spent in the field. The battalion staff must completely preplan the training throughout the period, in order that the battalion will proceed smoothly from one operation to the next. Careful preplanning will insure sufficient time for each phase to be executed carefully and completely. There should be sufficient time for correction of deficiencies and, if necessary, repetition of the exercise. At every opportunity concurrent training should be checked and improved. This would include such details as supervising the numerous road marches which normally occur during the training indicated in the schedule.

## APPENDIX I

### REFERENCES

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- SR 110-1-1 Index of Army Motion Pictures and Film Strips.
- SR 310-20-series Index of Military Publications.  
Dictionary of United States Military Terms for Joint Usage.
- FM 5-30 Land Mine Warfare.
- FM 6-135 Adjustment of Artillery Fire by Combat Soldier.
- FM 10-63 Graves Registration.
- FM 17-22 Reconnaissance Platoon and Reconnaissance Company.
- FM 17-32 Tank Platoon and Tank Company.
- FM 17-33 Tank Battalion.
- FM 17-50 Logistics, Armored Division.
- FM 17-70 Signal Communication in the Armored Division.
- FM 17-100 Armored Division and Combat Command.
- FM 20-100 Army Ground Forces Light Aviation.
- FM 21-5 Military Training.
- FM 21-8 Military Training Aids.
- FM 21-75 Combat Training of Individual Soldier and Patrolling.
- FM 22-5 Leadership, Courtesy, and Drill.
- FM 25-10 Motor Transport.

FM 30-5	Combat Intelligence.
FM 30-10	Observation.
FM 30-20	Military Maps.
FM 30-25	Counterintelligence.
FM 30-101	The Maneuver Enemy.
FM 30-102	Handbook on Aggressor Military Forces.
FM 30-103	Aggressor Order of Battle.
FM 30-104	Aggressor Army Representation.
FM 31-25	Desert Operations.
FM 31-35	Air-Ground Operations.
FM 31-50	Attack on a Fortified Position and Combat in Towns.
FM 70-10	Mountain Operations.
FM 10-15	Operation in Extreme Cold.
FM 100-5	Field Service Regulations, Operations.
FM 100-10	Field Service Regulations, Administration.
FM 101-5	Staff Organization and Procedure.
TM 20-221	War Department Accounting Instructions for Unit and Headquarters Funds.
SR 320-5-1	Dictionary of United States Army Terms.
SR 320-50-1	Authorized Abbreviations.
AR 345-5	Personnel Management, Personnel Records.

## **APPENDIX II**

### **TYPICAL RADIO NETS AND WIRE SYSTEM**

---

Figures 69 and 70 show the typical radio nets used in the reconnaissance battalion; figure 71 shows a typical wire system. SCR and equipment models numbers shown are those in present use. See the latest T/O & E's and applicable technical manuals for new equipment and its characteristics.

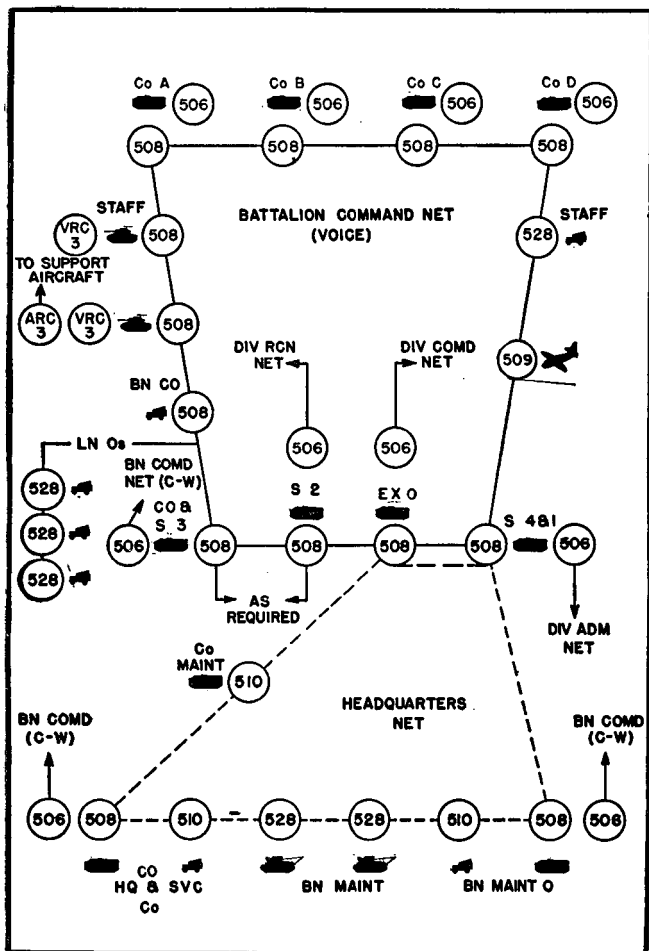
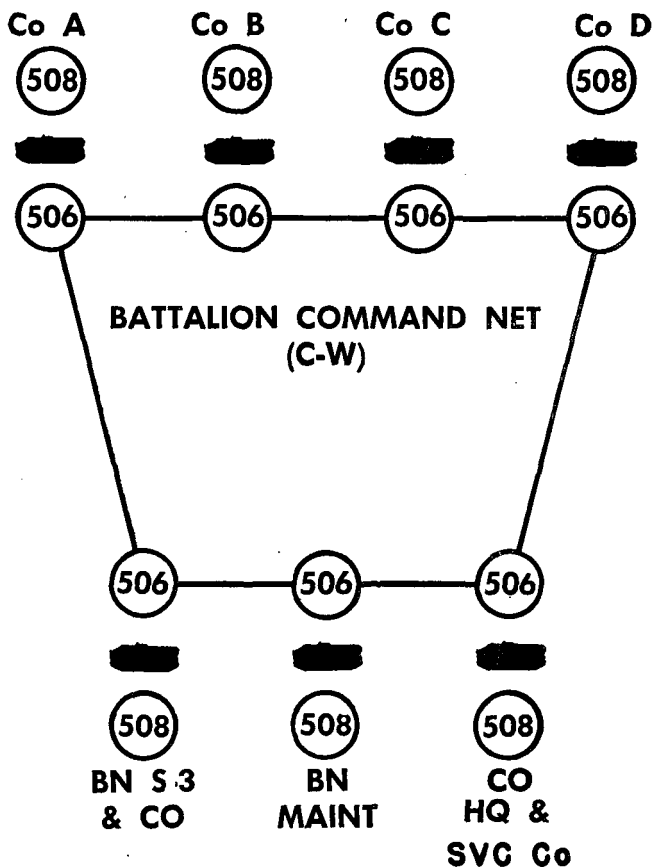


Figure 69. Typical radio nets, reconnaissance battalion (voice).



*Figure 70. Typical reconnaissance battalion command net (C-W).*

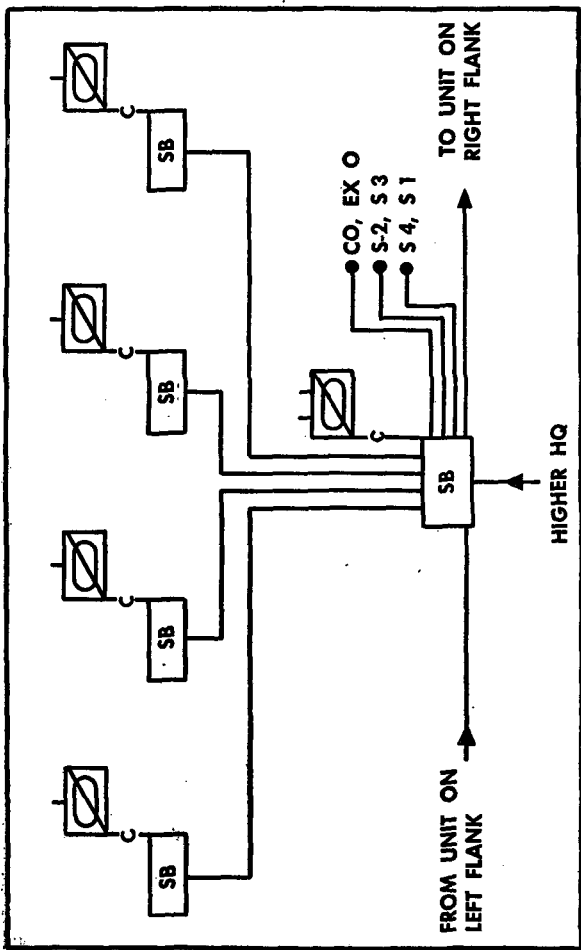


Figure 71. Typical wire system, reconnaissance battalion.

# APPENDIX III

## RECONNAISSANCE BATTALION COMMANDER'S CHECK LIST FOR ESTIMATE OF THE SITUATION

---

Use this check list as a guide. Use only those items which apply.

### 1. MISSION

What is my mission?

Do I need additional information?

### 2. SITUATION AND COURSES OF ACTION

#### *a. Considerations.*

*Weather:* Does it affect my mission; the terrain? If so, how?

*Terrain:* Is there sufficient maneuver room for my vehicles?

Will the ground support tanks?

How do the critical terrain features affect my mission?

What obstacles affect the accomplishment of the mission? (Streams, steep banks, woods, mine fields.)



*Enemy Situation:* Where is the enemy? What type of troops does he have? (Tank, anti-tank, etc.)

*My situation:* What troops are available? (Infantry, tanks, artillery support, engineers.) Are supplies adequate?

*b. Enemy capabilities.*

What can the enemy do to interfere (when, where, what strength)?

Attack	Yes	No
Counterattack?	Yes	No
Defend in strength?	Yes	No

*c. My courses of action.*

	<i>Organization for combat</i>	<i>Scheme of maneuver</i>
PLAN A _____	_____	_____
PLAN B _____	_____	_____
PLAN C _____	_____	_____

### 3. CONSIDER EACH PLAN AGAINST THE CAPABILITIES OF THE ENEMY

Such as—

Foremost capability— enemy attack	Secondary capability— enemy counterattack	Other capability— enemy defense
PLAN A _____	_____	_____
PLAN B _____	_____	_____
PLAN C _____	_____	_____

#### 4. COMPARE THE PLANS, THEIR ADVANTAGES AND DISADVANTAGES, AND SELECT THE BEST PLAN

Makes maximum use of terrain, weather	Takes best advantage of enemy situation and capabilities	Takes maximum advantage of characteristics of troops assigned to me; fire power, mobility, mass, surprise
PLAN A _____	_____	_____
PLAN B _____	_____	_____
PLAN C _____	_____	_____

#### 5. DECISION

My plan is—

What \_\_\_\_\_?

When \_\_\_\_\_?

Where \_\_\_\_\_?

How \_\_\_\_\_?

Why \_\_\_\_\_?

## APPENDIX IV

### BATTALION ATTACK ORDER (CHECK LIST)

---

(Battalion commander omits heading and ending in oral order.)

#### CLASSIFICATION

----- Reconnaissance Battalion

----- Place

----- Date and Time

Operation Order -----

Maps: Identify maps to be used.

#### 1. GENERAL SITUATION

*a. Enemy forces.* Composition, dispositions, location, movements, estimated strength, identifications, and capabilities.

*b. Friendly forces.*

(1) Situation and mission of the combat command or division and adjacent units.

(2) Covering forces and other security elements in the vicinity.

#### 2. MISSION

*a. A statement of the task which is to be accomplished by the battalion.* Include, in so far as ap-

#### CLASSIFICATION

## CLASSIFICATION

propriate, who, what, where, when, how, and why.

*b. Details of coordination applicable to the battalion as a whole.*

- (1) Objective.
- (2) Axis of advance.
- (3) Attack position.
- (4) Boundaries.
- (5) Time of attack.
- (6) Formation or order of march.

### 3. TASKS FOR SUBORDINATE UNITS

*Note.* Use a lettered subparagraph for instructions to each subordinate tactical unit.

*a. Reconnaissance company.*

- (1) Objectives.
- (2) Axis or route of advance.
- (3) Security, support, or other special missions.

\* \* \* \* \*

*d. Attached unit.*

*e. Reserve.*

*x.* Instructions applicable to two or more units, or to the entire battalion, which are necessary for coordination or the general conduct of the operation.

## CLASSIFICATION

## CLASSIFICATION

### 4. ADMINISTRATIVE AND LOGISTICAL MATTERS

Instructions concerning the aid station, resupply, maintenance, evacuation (axis, VCP, or both), special administrative details, and changes or additions to standing operating procedure.

### 5. COMMAND AND SIGNAL MATTERS

#### *a. Communication.*

- (1) Variance from current signal operation instructions.
- (2) Time radio nets open.
- (3) Radio silence (if any).
- (4) Visual or sound signals.
- (5) Any special instructions.

#### *b. Command post location.*

- (1) Axis of signal communication (if applicable).

-----  
(Battalion Commander's Last Name)  
Grade

Annexes:

(List with title)

Distribution:

Official:

(Signed by S3, last name only)

S3

CLASSIFICATION

## APPENDIX V

### SAMPLE ATTACK ORDER

---

Given below is an example of a battalion commander's oral attack order. The overlay shown in figure 72 is used in conjunction with this order; sufficient copies of the overlay are prepared so that a copy can be furnished each subordinate commander. This type of order might be used by the battalion commander in a fast-moving situation, such as an exploitation or pursuit.

"The only enemy locations known are shown on the overlay. Enemy activity has been sporadic; some traffic has been seen moving to the north in our zone.

"The division continues the exploitation of its zone to seize the crossings over the SUSQUEHANNA RIVER along the two axes shown on the overlay.

"This battalion attacks at 0730 from TWO TAVERNS to capture BONNEAUVILLE. Battalion in column—Company B, Company C, Company D.

"Company A will support the attack from its present position.

"Company B will lead the attack; follow axis shown on overlay.

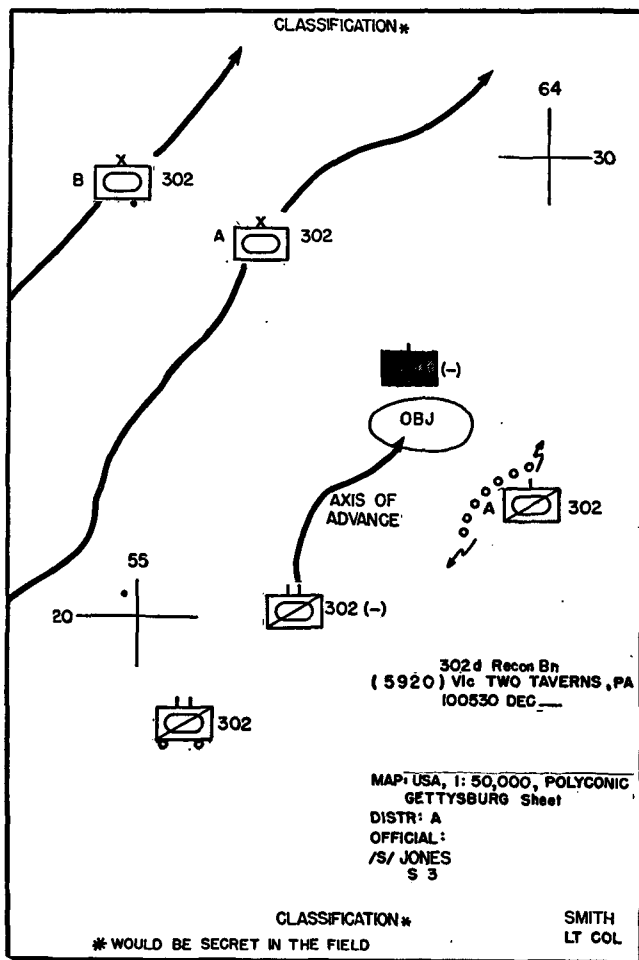


Figure 72. Overlay to accompany attack order.

“Company C, follow Company B, prepared to assist Company B by fire and maneuver.

“Company D, battalion reserve initially.

“Battalion trains remain in vicinity of HOFFMAN ORPHANAGE, move forward on order.

“Current SOI.

“I will be in rear of Company B. Check the time with me—it is now 0530. Are there any questions?”



## **APPENDIX VI**

### **ORAL WITHDRAWAL AND RELIEF ORDER ISSUED BY THE BATTALION COMMANDER IN CONJUNCTION WITH A MAP**

---

"The 101st Armored Infantry Battalion has just repulsed two enemy attacks at UNION MILLS.

"This battalion withdraws from its present position, without delay, and relieves the 101st Armored Infantry Battalion along the line CASH-TOWN-GETTYSBURG-HIGHWAY 30 to SOUTH BRANCH CONEWAGO CREEK, by 191200 October.

"Company A will cover withdrawal of battalion. Occupy positions in rear of Companies D and B in vicinity ST ANTHONY, ZORA, and MARIA FURNANCE, and withdraw on my order. Upon completion of withdrawal of remainder of battalion, Company A will secure assigned sector.

"Company C will move via HIGHWAY 116 and secure assigned sector, this company to have first priority on HIGHWAY 116.

"Company D will move via HIGHWAY 116 and secure assigned sector.

"Company B will move via HIGHWAY 15 to GETTYSBURG, thence via HIGHWAY 30, and secure assigned sector.

"Company A, 1st Tank Battalion, attached effective upon withdrawal through front lines, assembles vicinity battalion command post in battalion reserve.

"Companies occupy positions on most favorable ground in vicinity of indicated line.

"Battalion trains move to new location at ZIEGLERS GROVE.

"Battalion CP moves along axis HIGHWAY 15 to new location. I will be with the forward echelon. Any questions?"

## APPENDIX VII

### CHECK LIST FOR COUNTERATTACK PLAN OR ORDER

---

1. Should any additional units be attached to enable accomplishment of the mission assigned in the counterattack plan? (Tanks, engineers, etc. Request only what you think absolutely essential.)
2. Should defensive positions be occupied to block possible enemy approaches in conjunction with counterattack plan?
3. In planning the scheme of maneuver, where will you locate the following?
  - a.* Objectives, if any.
  - b.* The attack position.
  - c.* The line of departure.
  - d.* The direction of attack.
4. What mission will you assign the counterattack force after completion of the counterattack?
5. What mission will you assign the overrun unit?
6. What mission will you assign the other front-line units?
7. What is your artillery fire plan to support the counterattack?

8. How will you recommend that the following be employed?

*a.* Engineers.

*b.* Other attached units.

9. What other coordination is necessary?

10. What will be the location of the battalion trains?

11. Commanding officer of the counterattack unit will report capture of objective by radio code word and pyrotechnics.

## APPENDIX VIII

### CHECK LIST FOR USE IN THE PREPARATION OF RECONNAISSANCE INSTRUCTIONS

*Note.* See appendix IX, FM 17-22.

---

#### 1. WHAT TO REPORT ABOUT THE ENEMY

*a. Tanks and armored vehicles.* Location, activity, number, type, direction and speed of movement, armor and armament.

*b. Antitank obstacles and defense works.* Kinds of weapons furnishing fire protection. Defensive works, traps, demolitions, obstacles, land mines, CP's, OP's, including activity around each. Give location, type, extent, and progress of work, and whether protected by fire.

*c. Columns.* Composition, formation, length, speed, direction of movement, location of head of column at a certain time. Column protection.

*d. Troops.* Give strength, composition, disposition, activity, direction and speed of movement, location of flanks.

*e. Identifications.* Every identification of enemy personnel and matériel will be reported. Reports will include date, location, time, and name of unit making capture or identification. All enemy insignia and other distinctive markings, or a description thereof, will be reported.

*f. Aircraft.* Give location of person observing aircraft. Type, number, direction of flight, altitude. If attacked give method (dive bombing, strafing, low-level bombing).

*g. Information required in shelling report (SHELL REP).* This form is used by individuals and units to report enemy shelling. It contains information to facilitate counterfire measures.

- (1) Who is reporting.
- (2) Your map location.
- (3) Estimate direction of enemy guns by sound, flash, smoke, or furrow (indicate which).
- (4) Estimated distance to or location of guns.
- (5) Coordinates of area shelled.
- (6) Area shelled from \_\_\_\_\_ to \_\_\_\_\_ (give time).
- (7) Number, caliber, and type of guns firing.
- (8) Number and type of shells.
- (9) Nature of fire (counterbattery, harassing, fire against observation posts, command posts, etc.).
- (10) Damage.
- (11) Flash-bang seconds.

*h. Chemical agents.* Type, method of projection, whether high, medium, or low concentration.

## **2. WHAT TO REPORT ABOUT TERRAIN**

*a. Terrain features.* Lakes and swamps—location, size, passability to vehicles and foot troops. Vegetation—nature, density, size of area, cover available for vehicles and foot troops, passability

to vehicles and foot troops. Rivers—width, depth, bottom, velocity of current, types and condition of banks, location of fords for vehicles and foot troops, approaches to fords. Terrain obstacles (steep slopes, broken ground, rocks, canals, ditches, or any other nonmilitary obstacle)—description, location, passability to vehicles and foot troops, bypass routes.

*b. Roads.* Type, width, condition of shoulders, traffic density.

*c. Railroads.* Gauge, condition of roadbed, size spikes, traffic density; location of stations, spurs, sidings; amount and type of rolling stock.

*d. Bridges (both road and railroad).* Location, approaches, width and overhead clearance, number of spans, type and condition of floor and piers, whether or not bypasses are practical. If possible, tonnage load capacity.

*e. Hills (both road and railroad).* Length and percent of grade.

*f. Towns.* Size, characteristics, approaches, routes through, bypass routes.

*g. Errors in maps.* All errors in maps will be reported immediately.

## APPENDIX IX

### UNIT JOURNAL

---

A sample unit journal is shown in figure 73. Principal features of this journal are as follows (the numbers of the notes listed below correspond to the encircled numbers on the sample journal) :

1. The S3 section will keep one combined unit journal for the battalion staff.

2. Each journal usually covers a period of 24 hours.

3. In the Time column will be entered the time of receipt of an incoming message, or the time that an outgoing message was transmitted or sent out.

4. Under Serial No. each entry will be numbered consecutively, each new journal period starting with No. 1. The copy filed in the unit journal file bears the same serial number.

5. Under Time Dated will be entered the time that the entry was originated by the sender.

6. Under Incidents, Messages, Orders will be entered a brief synopsis of the oral or written message, or incident. Such documents as orders will be logged as shown by entry No. 12. A copy of each message or document entered will be filed in the unit journal file. The unit from which the message was received or to which it was sent is



302d Recon Bn  
(522480) v/c WHITFORD PO, PA  
182400 Nov 1949 ②  
192400 Nov 1949 to

## UNIT JOURNAL ①

[illegible]

CLASSIFICATION#

Would be SECRET in combat.

Figure 73. Sample unit journal.

normally shown in abbreviated form ; for example, A/302 in the sample journal refers to Company A, 302d Reconnaissance Battalion.

7. Symbols used in the Action Taken column are M, put on situation map ; S, disseminated to staff ; T, disseminated to troops (companies and other subordinate units) ; F, copy filed in unit journal file at time of entry.

## APPENDIX X

### UNIT REPORT

---

This report, a suggested form for which is given below, will be submitted in form and detail and at intervals prescribed by the headquarters requiring the report.

#### CLASSIFICATION

----- Reconnaissance Battalion  
Town, Coordinates, Country  
Day Hour Month Year.

Unit Report No. -----

Period covered (Day, hour, month, year to Day, hour, month, year).

Maps: (Country, state, scale, sheet of maps referred to in report.) (Omit subparagraphs not applicable. Indicate detail on overlay where possible.)

#### 1. ENEMY

- a. *Units in contact, to include—*
  - (1) Enemy front lines or nearest elements.
  - (2) Defensive organization.
  - (3) New identifications.
- b. *Enemy reserves that can affect our situation.*
- c. *Brief description of enemy activity during*

#### CLASSIFICATION

## CLASSIFICATION

*this period, to include—*

- (1) New enemy tacts, weapons, or matériel.
- (2) Kind of resistance met—
  - (a) No resistance, light resistance, moderate resistance, or stiff resistance.
  - (b) Road blocks, blown bridges, or other obstacles such as dug-in positions or pillboxes, plus type of fire covering these obstacles.
  - (c) Small-arms, mortar, artillery, or AT fire.
  - (d) Counterattacks, indicating size, time, and nature of same, plus effect on our operations.
  - (e) Patrols, indicating size, time, and nature of same, plus their effect.
  - (f) Operations of enemy armor, infantry, cavalry, or other combat arms.
  - (g) Air operations.

*d. Brief estimate of—*

- (1) Enemy strength, to include approximate number of enemy personnel and/or tanks, AT guns, or other such weapons.
- (2) Material means, such as ammunition, gasoline, rations, etc.
- (3) Morale, as determined from operations against our unit or from other sources, such as PW's, civilian reports, etc.

## CLASSIFICATION

## CLASSIFICATION

- (4) Probable knowledge of our situation, as determined from enemy activity and reaction to our operations, or from other sources.

### *e. Conclusions.*

- (1) Courses of action open to the enemy which can affect our mission, as determined by analysis of all considerations of the enemy situation noted above.
- (2) The earliest estimated time at which the enemy can put each such course of action into effect.

## 2. OWN SITUATION

### *a. Locations of our front lines or our most advanced elements.*

#### *b. Locations of—*

- (1) Battalion and company command posts.
- (2) Each company, attached unit, and platoon (when separated from unit).
- (3) Battalion and company boundaries (when applicable).

#### *c. Locations of—*

- (1) Adjacent units, if known.
- (2) Units in direct support, such as artillery or engineers.

### *d. Brief description of our operations during this period, to include—*

## CLASSIFICATION

## CLASSIFICATION

- (1) Higher headquarters (division, combat command, etc.) to which attached or supporting.
- (2) Mission(s) assigned the unit during this period.
- (3) Specific time-dates, axes of advance or withdrawal, objectives.
- (4) Delays encountered and brief reasons therefor.
- (5) Employment of the companies and attached units in the scheme of maneuver.
- (6) General summary of the battalion's overall operations.

*e. Concise statement of the battalion's combat efficiency, as determined from personnel strength, tank strength, state of training, status of ammunition and other critical supplies, casualties, morale, and esprit de corps.*

*f. Results of operations during this period, based upon—*

- (1) Accomplishment of the battalion mission.
- (2) Estimated effect upon the enemy's future operations.

### 3. ADMINISTRATION

*a. Personnel.*

- (1) Strength records and reports.
  - (a) Authorized and assigned strength.
  - (b) Special reports.

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## CLASSIFICATION

- (c) Unusual events which affect records, such as inspections and loss of records.
- (2) Replacements.
  - (a) Number needed.
  - (b) Critical shortage in certain MOS.
  - (c) Difficulties experienced with replacements: quality, quantity, equipment, etc.
  - (d) Casualties—battle and nonbattle.
- (3) Discipline, law and order.
  - (a) Courts martial.
  - (b) Unusual nature of charges.
  - (c) New procedures or regulations.
  - (d) Stragglers, AWOL's, or deserters. Action taken.
  - (e) Areas placed off limits, with reasons.
  - (f) Looting, pilfering, etc. Action taken.
- (4) Prisoners of war.
  - (a) Number.
  - (b) Location of collecting points.
  - (c) Evacuation problems.
  - (d) Items of special interest about PW's: morale, malnutrition, diseases, treatment, etc.
- (5) Burials and graves registration.
  - (a) Location of collecting points.
  - (b) Agency and location to which dead were evacuated.

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## CLASSIFICATION

- (c) Number evacuated.
  - (d) Discrepancy between number killed and number evacuated, with reasons.
  - (e) Any burials by battalion during period, indicating where, why, whether friendly or enemy, and whether all requirements were complied with.
  - (f) New procedures or instructions.
- (6) Morale and personnel services.
- (a) State.
  - (b) Factors contributing to present state.
  - (c) Morale activities making special contribution.
  - (d) Leave or pass quotas: number, place, utilization.
  - (e) Special reports concerning mail.
  - (f) Food.
  - (g) Leadership.
  - (h) Awards.
  - (i) Physical hardships.
  - (j) Status of supply and equipment.
  - (k) Chaplains.
  - (l) Policies and procedures which affect morale.
- (7) Civil affairs and military government.
- (a) Evacuation of civilians in area.
  - (b) Displaced persons.

## CLASSIFICATION



## CLASSIFICATION

- (c) Whether civilian food, water, and clothing adequate.
  - (d) New governments set up, appointments.
  - (e) Employment of local labor; contracts, payment, numbers, etc.
- (8) Procedures.
- (a) Special problems on classification, reclassification, assignment, reassignment, promotion, separation, or retirement. Give names and events.
  - (b) New policies or procedures.
- (9) Interior management, including changes in operating procedure.
- (10) Civilian employees, including government employees or civilian technicians operating with battalion, and what they did.
- (11) Miscellaneous. Unusual administrative activities not covered above.
- b. Logistics.
- (1) Supply.
- (a) Status of major items.
  - (b) Critical shortages (include number requested, requisition number, and date of requisition).
  - (c) Requisitions, requests, etc., submitted.

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## CLASSIFICATION

### (2) Evacuation and hospitalization.

- (a) Number of casualties received in aid station.
- (b) Number of casualties evacuated.
- (c) Number of casualties returned to duty.
- (d) Number of casualties on hand.

### (3) Transportation.

- (a) Status of cargo trucks.
- (b) Major movements utilizing cargo transportation.

### (4) Service.

- (a) Location battalion trains.
- (b) Status of maintenance.
- (c) Special operations of battalion maintenance platoon.

### (5) Miscellaneous. Information not logically a part of (1) through (4) above.

## 4. GENERAL

Pertinent comments not covered elsewhere. Emphasize items covered above which are particularly important or critical.

---

Commander

Annexes

Distribution

Authentication

CLASSIFICATION

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